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ART. I. *Labillardiere's Account of a Voyage in Search of La Perouse.*

(Concluded, from p. 16.)

THE Admiral's instructions having been, as we observed, kept secret, we are at a loss for the cause of his again shaping his course for the great southern ocean, after having already visited so many islands there, and within his route included the largest on the globe. While at Amboyna, he might have received dispatches which regulated his conduct, or, after discovering the fallacy of the tidings which had so hurried him to the Admiralty Islands, he might feel it his duty to touch the northern extremity of New Zealand, and visit the Friendly Islands. Be this as it may, doubtless, he was conscious that humanity, and the friends of the sufferers whom he was in search of, would be greatly consoled by the renewed enquiry. The ascertaining the nature and extent of the island beforementioned, could not but be an important desideratum to a great commercial nation; and this consideration might also have had its sway in his mind.

It is true, this part of D'Entrecasteaux's design was but little more than half accomplished, and the other portion of the work remains to be done by a future navigator. The writer of the voyage has thrown out a remark or two which might give room to doubt of the commander's judgment, whatever may have been his other qualifications as a seaman. He blames him, for instance, for commencing his examination of New Holland from the west, rather than the east, as the violence of the south-west winds expose vessels to the greatest dangers; whereas the easterly winds, which are the most constant, never blow with violence. But, as we are

not sitting in judgment on the nautical talents of the admiral, we will be contented to follow the author in the progress of his narrative.

On the 14th of October, 1793, a light breeze springing up, the two ships weighed anchor again. They passed Kissing Island on the 18th, and on the 23d distinguished the Portuguese colours flying at that nation's settlement, on the west coast of Timor. They were presently clear of all the Molucca and Sunda islands, and again in the open Indian sea. The calms, however, had rendered this part of their navigation tedious, and given time to the water on board to grow putrid and unwholesome: it was, therefore, not drinkable till it had been violently agitated by the apparatus we have already described, in order to expel the inflammable air, which the writer says, 'adhered to it but in a slight degree.' He adds, 'This unexpected decomposition was surely owing only to the little care that had been taken in rincing out the water casks. There had remained in them enough of the inflammable particles contained in the old water to speedily corrupt the new.' The ships had been greatly incommoded for some months, while within the tropics, by that species of *tinea* called *blatta Germanica*, which devoured not only their biscuit, but destroyed their paper, linen, &c. These creatures sipped the contents of all the ink-horns they could get at, without appearing to be prejudiced by the effect of the vitriol!

On the 7th of December the ships were off the south-west cape of New Holland; and on the 12th were in great danger.

'From six o'clock in the morning, the mercury in the barometer had experienced a fall of more than three lines, although the weather was very fine; this certain indication of a great loss of equilibrium in the atmosphere merited the most serious attention. We, nevertheless, stood on before the wind into the middle of islets, lying about a myriameter from the coast, although we were very uncertain of finding a passage between those which we perceived a great way a-head. By ten o'clock we had run pretty far in among them, when we saw that they were linked together by reefs. The weather had a threatening appearance; the horizon had just become overcast in the west-south-west, and presently the wind blew from that quarter with the greatest impetuosity. We for a long time sought between these shoals some break that might allow us to gain the open sea, but without success; as we had no other outlet than the passage by which we had run in, we tacked, in order to stand towards it. The violence of the wind having forced us to take in the greater part of our sails, the ship made so much lee-way that we fell very fast to leeward of this opening. Our running rigging breaking fore and aft, our evolutions were consequently performed but

but very slowly : in vain we lay up several times for the opening ; we were always obliged to run again, into the middle of the shoals, and thus continue plying to windward, in a space strewn with rocks, concealed under water at different depths, on which we every moment fully expected to see the ship strike. It required a very experienced eye to distinguish them in so extremely rough a sea. Citizen Raoul, a very intelligent young seaman in whom the admiral placed much confidence, had gone up to the maintop-mast head, and thence he directed the course of the ship. We several times saw ourselves driven quite close to shoals hidden by the waves, and he carried us clear of them all, although it was very difficult to perceive them even at a short distance.'

The Esperance not holding so good a wind as the Recherche, was in still greater danger. On the 4th of January, the commander was resolved to take leave of a barren coast, after having ranged along it as far as Nuyts land, and being under a short allowance of water : orders were therefore given for the ships to be steered for Van Diemen's land, where they had wooded and watered the preceding year. On the 22d of the month they were at the entrance of Storm Bay, and as the wind prevented them from entering D'Entrecasteaux's Strait, they stood in for a bay which they called *La Baie des Roches.* (Rocky Bay.)

On the 23d of January, 1793, the author went on shore in this bay, where he made various excursions up the country, with the view of augmenting the number and value of his collection of plants, and other natural productions. He found the natives perfectly harmless ; insomuch, that although they had discovered him and three of his shipmates asleep, they had not offered the smallest violence to any of them. A considerable number of these savages had been fishing on the banks of the lake, when, upon our travellers advancing towards them, they drew up in a formal manner.

' The full grown men and the young boys were ranged in front, nearly in a semi-circle : the women, girls, and children, kept behind at the distance of a few paces. Their manner not appearing to announce any hostile intention, I made,' says the writer, ' no hesitation in approaching the oldest of the men : he accepted with a good grace a piece of biscuit, which I offered him, and which he had seen me eat. I then held out my hand to him, as a token of friendship ; and I had the satisfaction to see that this savage understood me perfectly well. He gave me his, stooping a little, and at the same time raised his left foot, which he threw back in proportion as he bent his body. These motions were accompanied by an agreeable smile.

' My companions also advanced quite close to the others ; and im-

mediately the best understanding prevailed between us and these inhabitants: they gladly received the neck-handkerchiefs which we offered them. The young people drew still nearer to us; one of them had the generosity to give me some small whelks, perforated near the middle, and strung on a cord. This ornament, which he called *Canlaride*, was the only one that he possessed; he wore it round his head: a handkerchief replaced this present, and gratified the wishes of the savage, who advanced, that I might bind it; and, putting his hand there several times, expressed the greatest joy. We wore a great many clothes, on account of the coldness of the nights: the greater part of these we pulled off, to present to these islanders.

'The women were very desirous to come nearer to us; and although the men made signs to them to keep apart, their curiosity was every moment ready to get the better of all other considerations. However, confidence gradually increased; and they then obtained permission to approach. It appeared to us very astonishing, that in so high a latitude, where, at this early season of the year, we already found the cold pretty severe during the night, these people felt not the necessity of clothing themselves. The women even were, in general, entirely naked, like the men; some of them only had their shoulders and part of their back covered with a kangaroo's skin, the hair of which was next their flesh.'

It was thought proper to shew these savages the effect of fire arms, but though an endeavour was made to give them to understand that they had nothing to be afraid of from the explosion, they nevertheless evinced terror and apprehension. The natives of this place have woolly hair, and allow their beards to grow. In children, the upper jaw projects considerably further out than the lower, but with age it falls into its due position. The author expresses his astonishment at the endless variety of the productions of the earth, at this part of New Holland: for though he had the preceding year made large botanical researches, yet he reaped a new and different kind of harvest now. The season indeed was not the same: many of those plants he gathered at this time had disappeared in the former advanced season. Among the new plants, he observes, were several of the single-leaved *mimosa*.

Speaking of the manner in which the natives subsist, the author says,

'Till now we had only a faint idea of the trouble the women take to procure the food necessary for their family: presently they each took a basket, and were followed by their daughters, who did the same; they then went to the rocks projecting into the sea, and thence ventured to the bottom of the water, in search of lobsters and other shell-fish. As they were out of sight for a long time, we felt very uneasy

uneasy on their account; for they had dived in the midst of sea-weeds of a great length, amongst which I remarked the *fucus pyriferus*: we were afraid they were entangled in them, and were not able to regain the surface of the sea; at length, they re-appeared, and shewed us that it was no difficult matter for them to remain under water twice as long as our most expert divers. An instant was sufficient for them to take breath; they then dived again several times, till their basket was nearly filled. Most of them were provided with a small piece of wood, cut in the form of a spatula; they made use of it for detaching from the rocks concealed under water, some very large ear-shells: perhaps they picked them, for those which they brought up, were all very big.'

A he and she goat were left behind, in hopes of so useful an animal becoming naturalized to the mountains on this extremity of New Holland, where, during the stay of the ships, the weather, the writer remarks, was seldom free from clouds, though but little rain fell. The tides were perceptible once in the twenty-four hours; and as the wind had much influence on them, the time of high water could not be determined, with exactness, at the full and change of the moon. The greatest perpendicular rise of it was only sixteen decimeters (not quite five feet.)

By the great difference in the variation of the compass, from observations made on board, and at the observatory on shore, (in the former it was 7° 34 east; while in the latter, it was only 2° 55 east) the writer concludes a magnetic attraction prevailed; and this opinion, he adds, was strengthened by indications of ferrugineous substances near the spot. It was further remarkable, says the author, 'that at the observatory of the Esperance, which was distant about 600 meters (rather more than 700 yards) from that of the Recherche, the variation of the needle was 8° east. It was ascertained, that this difference did not proceed from the compasses made use of; for it was the same, after having successively carried the same compasses to the two observatories.'

On the 14th of February, the ships got under sail from this bay, when they soon after struck on a shoal of no great extent, formed of mud and sand. They were obliged to wait for the flood, which brought them both afloat. In the interim, the boat which had been sent to discover inlets and anchorages, returned loaded with black swans, but no river had been met with; and it is to be observed, that all the rivers which they had seen at Cape Diemen were very small; a circumstance which, in the writer's opinion, indicated an intersected country. The wind coming foul, the anchors

were cast, and while the naturalist and some of the officers went on shore, their fishermen used their nets, when, at at the coming of the flood tide, they caught a vast quantity of fish; among them several species of Rays, some weighing upwards of 240 pounds. While the ships rode at anchor, great numbers of the natives came down to the shore, expressing great joy on the interchange of good offices and presents, and were particularly delighted at the repetition of some words, as spoken by the inhabitants of Rocky Bay. They were entirely naked and without arms, and unaccompanied by any women. One of these savages was observed by the draughtsman to be finely proportioned, and who, the author says, 'by his *costume* (though it is difficult to imagine what is meant by the costume of a naked person) might be taken for a New Holland *petit-maitre*, he was tatooed with so much symmetry; and above all, his hair was so greased and thickly powdered with ochre.'

It seemed that these savages, like those which had lately been visited, were unacquainted with the use of the bow. Many of them had lost one, and others both of the middle incisors of the upper jaw, nor could this cause or custom be accounted for. Several had swollen navels, which induced the surgeons to examine whether such prominences were the consequence of hernias; but on inspection it was found not so. It was thought that, separating the umbilical cord at too great a distance might occasion those tumours or inflations. Though these, like all the other savages of Cape Diemen, lived on fish; yet the writer says, no traces of a cutaneous disorder was to be seen, in opposition to the opinion, many writers have maintained, that people subsisting wholly on fish are subject to a species of elephantiasis. These people had seen ships before in Adventure Bay.

While the ships lay in this situation, a second boat had been dispatched to make geographical observations, and by it a channel, separating Maria's Island, was discovered, and which is of consequence to whomsoever may have occasion to navigate in this quarter. A prodigious number of places of shelter were found, all the way from the South Cape, as far as the meridian of Cape Pillar, with excellent anchorages.

It appeared, that at this season, fresh water was scarce in the bays; but that in the one which extends the farthest to the northward, is a river where, in an extent of little more than 50 yards from its mouth, at only an hour from high water the stream is so strong and rapid as to stem the tide, and prevent the sea from impregnating it. They ships sailed again, and anchored

anchored on the 23d of February, in Adventure Bay; where, by several inscriptions engraved on the trunks of trees, they found that Captain Bligh had anchored there, and that he was to proceed to the Society Islands, in order to take in the bread fruit tree, and carry it to the British West India colonies. On one of the trees was found the following inscription: '*Near this tree, Captain William Bligh planted seven fruit trees, in* 1792. *Messrs. S. and W. Botanists.* Three young fig trees were found alive, as also two pomegranates, and a quince; the seventh tree doubtless was dead. The commander of the expedition ordered a she goat with kid, and a young he goat to be put on shore. It was, however, to be feared, that these animals would be killed e'er they could have time to propagate, since no traces, whatever, were to be found of the sow and boar which Captain Cook had left there.

The ships leave Adventure Bay on the 28th of February, and by a north-east course, arrive, on the 10th of March, in sight of the islets called the Three Kings, lying near the north Cape of New Zealand, which they approached, but did not land at. The inhabitants shewed great eagerness to traffic, exhibiting several bundles of New Zealand flax *(phormium lenax)* in every position, with the view to set off its beauty. They gave a decided preference to iron; but as a proof that they had no fear, they very readily exchanged their arms for that metal, or for scraps of cloth. Their darts were of hard wood, highly polished. Shoals of fish were seen on this coast; they rose to the surface of the sea, and ruffled it as a strong current would do. The inhabitants were tall and well made, and by their ornaments and their actions, gave reasons to believe they had no repugnance to eat human flesh. It would have been easy for the ships to have anchored in Lauriston Bay; but the remembrance of the melancholy events which befel Captain Marion, and afterwards Captain Furneaux, determined the Admiral not to put in there, although the writer represented to him how important it would be to take on board a few of the liliaceous plants called New Zealand flax plants, which were so likely to thrive in Europe, and whose threads, he remarks, are much stronger than any vegetable productions hitherto employed in making cordage. In their run to the Friendly Islands, they discovered several small islands, till then unknown, one of which, the principal, whose lofty summit was covered with trees, the Admiral named *La Recherche.* It is in lat. 29° 20 18′ south, and longitude 179° 55′ east (from Paris.) On the 23d of March they discovered Eooa, and the next day were close in

with Tongataboo, where the Admiral received a present of two pieces of cloth, made from the paper mulberry tree, large enough to cover a ship.

The stay at the Friendly Islands restored the health of the ships' companies by the abundance of vegetables obtained there. The pork was found of excellent quality ; the hogs endured a long voyage, which, says the author, invalidates the opinion of Captain Cook, on that point. *Koree*, one of the sons of the Queen of Tongataboo, had engaged Capt. Huon of the Esperance, to give him a passage on board his ship ; but he is said to have been dissuaded from the measure by the tears of his *nine wives*, and numerous children, whom he was about to abandon. From every information given by the most intelligent of these inhabitants, there was no reason to expect La Perouse had put in there, or met with any accident near their coasts. After a day's sailing from Tongataboo, the ships saw Turtle Island, and by means of favourable breezes from the east-south-east, had sight of Errocan, the most easterly of the islands of the Archipelago, discovered by Quiros, in 1606, and which he denominated *Del Espiritu Santo*. Captain Cook has given this cluster of islands the name of the *New Hebrides*. The same afternoon (April 16) the ships made the island of Tanna, and presently afterwards distinguished the high mountains of New Caledonia, at which island they anchored, and where, to their surprize, the natives set more value upon cloths than upon nails, or even hatchets. One of the ship's company shewed them some cocoa-nuts, and yams, desiring them to go and fetch some, but to the astonishment of the crews, they expressed a desire to purchase those they saw, by offering their value in darts and clubs. The savages expressed some fear on seeing the hogs on board the ships, which gave strong reason to believe, none had been bred from those left by Captain Cook. No sooner, however, did they behold the poultry, than they imitated the crowing of a cock, a sign that they had those fowls on the island. They would not allow the women to enter the ships, and if any presents were made the latter, by the officers or seamen, their husbands undertook to convey the articles to them. These savages came off in curious double canoes, the mast of which was fixed at an equal distance from both, by means of a platform, which holds them together. They are neither constructed so well, nor do they sail so fast as those of the Friendly Islands. The inhabitants are quite naked, have woolly hair, with the skin almost as dark as the natives of Cape Diemen. On the 22d of April the ships anchored off Observatory Island, which the inhabitants name

Pudyoua

Pudjoua; where Piron, being invited to partake in a meal with one of the natives, discovered, by the bone the savage had in his hand, that he was eating human flesh.

'Few (says the author) of these persons belonging to the expedition, who had remained on board, would believe the account we gave them of the barbarous propensity of these islanders; for they could not be persuaded, that those people of whom Captain Cook and Captain Forster had drawn so flattering a picture, were degraded by so horrible a vice; but it was not difficult to convince the most incredulous. I had brought with me the bone picked clean, which our surgeon recognized to be that of a girl. I presented it to the two natives whom we had on board, and immediately one of these anthropophagi seized it with avidity, and tore with his teeth the ligaments and cartilages which yet remained.'

The rivulet which had supplied Captain Cook with water at this place, was dry at the season of the year when these ships were there, but they found a watering place about three hundred yards to the south-east of the position in which the Recherche lay, but which afforded them only as much as would every day fill the casks which the launch of each ship could carry. At this watering place was found an iron rusty candlestick, which, probably, had been left when Captain Cook anchored there in 1774.

They landed the next morning on that part of the coast nearest to the ships, and had further evidence of the inhabitants eating human flesh, but the canibals were solicitous to make their visitors understand that they devoured only their enemies; and the author observes, 'how could it be possible that we should have found so many inhabitants in this country, if hunger was their sole inducement to devour each other?' Proceeding a little to the south-south-east, plantations of yams and sweet potatoes were found; and ten of the savages, who accompanied the travellers, climbed up the *hybiscus liliaceus* to pluck and chew the young shoots, being fond of the mucilage contained in their bark. They gathered also the fruit of the *cordia sebastana*, which they ate to the very stone. Canibals could not have been expected to make so frugal a meal. Some worm eaten biscuit was given them, and they ate it, but they refused the cheese offered them, and which is remarkable enough, they preferred their own limpid water to either wine or brandy. The reader cannot but reflect with tender concern on the fate of the gallant Perouse and his companions when he reads, 'some of them came up to the most robust of us, and felt the muscular parts of our arms and

and thighs, exclaiming *Kapareck!* with an air of admiration, and even something more, which was not very pleasant to our feelings; they however gave us no cause of complaint.'

The shocking impression this paragraph makes on us, is in some measure softened by learning that cultivation is studied; that in the mountainous parts the natives form walls above each other, like the inhabitants of the mountains of Asia Minor, to prevent the soil from falling down on the lands below. The behaviour of these islanders to two of the officers and their party, after the boats had left them, was insolent and alarming; one of them snatched M. Dewelle's sabre; when, upon his attempting to pursue the thief, the rest raised their clubs to prevent him: the barge, however, arriving to their assistance, two chiefs interfered, and prevented further mischief. They even requested to be carried to the Admiral, whom they presented with two bundles of sugar-canes, and some cocoa-nuts. These chiefs were called Theabouma, and wore caps of a cylindrical form, ornamented, as the figures 2 and 3 in plate xxxvii describe, with feathers, shells, &c. and as they were open at the top, they could not be worn as a defence from rain. The gunner of the Esperance, while on a shooting party, near the wood-cutters, observed upwards of 200 natives practising to throw a dart, and performing several evolutions. This discovery alarmed all those on shore, and the officer commanding there, ordered all the hatchets, with the tools, to be carried on board: this was not done, however, without an attack, and incurring much danger. They threw stones from a sling, almost as quick as by the hand, making only half a turn above the head. The inhabitants of New Caledonia, make a practice of swallowing pieces of steatite, when pressed by hunger, the sense of which that stone deadens, while in the stomach; and as it is of a friable nature, it neither injures the intestines nor lies long in them. The ships had been observed the year before to pass along the west coast of the island, as three of the natives spoke of two vessels sailing on that side. Among other articles of natural history, the author describes a beautiful magpie, which he has represented by a drawing of the natural size. On the 7th of May, while at this island, the expedition had the misfortune to lose Captain Huon of the Esperance. A hectic fever which had preyed upon him for several months occasioned his death. He was buried as he desired, during the middle of the night in the center of the island of Pudyoua, without any monument, for fear the inhabitants of New Caledonia might discover the place of his interment.

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The author has given a description and representation of a spider of New Caledonia, called Nouguee, which the natives catch, and make a rare dish of. He presumes it must be equal in flavour to those spiders found in cellars, which some Europeans are so fond of, and which have the taste of a hazel nut.

On the 8th of May, the Admiral appointed M. Dauribeau to the command of the Esperance; and early on the morning of the 10th, the ships sailed from New Caledonia, but were soon after becalmed near a large chain of reefs to the westward, against which the sea broke in a frightful manner; a light breeze, however, springing up during the night, they succeeded in drawing off from them. During their stay at New Caledonia, they obtained no information whatever respecting the fate of the unfortunate navigators, who were the particular object of their research. Probability, however, leaves great room to conjecture that they may have found their destruction on the dangerous shores of this part of the globe. La Perouse was to explore the western coast of New Caledonia, and at the recollection of that circumstance, the feeling mind is agonized in contemplating the horrid destiny of any voyager, who, by shipwreck, may be obliged to seek for refuge among the canibals who inhabit these parts. The expedition must have lost almost all hope of success, when it left New Caledonia the second time without obtaining the smallest information to animate their pursuit. On the 13th they made Huon's Island, and on the next day, the Recherche was on the point of striking on the shoals which surround that and Moulin's Island. They had an interview with the inhabitants of Santa Cruz, or Egmont Island, where one of their crew died, from the effect of an apparently slight wound in the forehead by an arrow. They run along the south part of the Archipelago, called Solomon's Islands, and explored the north coast of New Britain, after passing Dampier's Strait; and here, on the 21st of July, they experienced a still greater loss in the death of Admiral D'Entrecasteaux, who had been some time ill of a scorbutic disorder, but died from the more immediate effect of a violent cholic, which he endured but two days. On the 2d of August they perceived Traitors' Islands, and on the 8th their chief baker died of a violent scurvy, his whole body being affected by an *emphysema*, owing to the great heats of the equator, being then near the line. On the 11th they again doubled the Cape of Good Hope of New Guinea, and on the the 16th anchored at Waygiou, where the crews obtained speedy relief from their sickness, by the ample supply of vegetables,

vegetables, turtles, and turtles eggs afforded them by the inhabitants. The turtles were caught chiefly on the Aiou Islands, contiguous to Waygiou. At this place too, they obtained some fowls and hogs, with plenty of shaddocks, cocoanuts, papaws, pumpkins, rice, sugar-canes, lemons, pimento, with various other agreeable antiseptics. As the inhabitants live almost under the line, they wear only a small piece of covering over those parts decency prescribes to conceal. Almost all the chiefs had been to the Moluccas, and spoke the Malay language. The author makes mention of a remarkable fact. He says, that at the moment of landing, such of the crew as were affected with the scurvy, and even those who had no appearance of it, experienced a considerable swelling in every part of the body; but that, however alarmed at so uncommon a symptom, they found it entirely disappear after three or four hours walking. The road where they anchored was greatly infested with alligators, but that circumstance did not prevent several of their people from bathing: those creatures are most to be dreaded during the night. The people of this island had declared war against the Dutch. The author mentions the proper places for taking in wood and water, gives the state of the thermometer and barometer, with the variation of the magnetic needle, and is particular in a great degree to describe the rare plants he met with throughout the voyage. The island of Bouro contains several kinds of wood fit for cabinet work, and which are in great request among the Chinese. The Dutch, in the Moluccas, build ships with teak-wood, said to be the most durable of any as yet known. The ships entered Bouton's strait, on the 22d of September, where they anchored, and as Dauribeau was taken ill, Rossel was entrusted with the conduct of the expedition, and formed the plan of sailing out by the channel which separates Pangesani from Celebes.

Nothing in the account of this voyage has tended to give the reader an exalted idea of the seamanship of the chief commander of the expedition; at this precise point of it, he will entertain still less confidence in those to whom the command now devolved. After a hazardous attempt, this outlet was found strewn with sand-banks, which obliged the ships to come to, several times a day, and at last to re-enter the straits of Bouton, being often obliged to wait till the tides occasioned currents favourable to the course intended to be steered. The natives told them they had seen four European ships pass those straits within the course of that year; two from Ternate, and two from Amboyna and Banda. They preferred

ferred money to every other article offered them. They expressed a desire to have some gun-powder and lead; but not obtaining them, they offered two slaves for a small quantity of each article, and appeared greatly astonished the offer was not accepted. They sailed along the coast of Madura, and cast anchor at the entrance of the channel leading to Sourabaya, one of the principal settlements occupied by the Dutch in the island of Java. The crews suffered considerably by the dysentery and malignant fevers; and the writer observes, that while he was on shore at Sourabaya, Reaumur's thermometer rose to 27°. He describes vegetation to be surprisingly rapid in that climate. Peacocks abound in the woods; many of which the crews shot, and their Javanese guides informed them, that the forests contained tygers, and other wild beasts of prey.

Not far from the chief town on this island, is a spring, whose water is covered with a *petroleum* oil, which is carefully skimmed off in order to be mixed with tar. In the neighbourhood of this spring is also found a great quantity of pumice stone.

On the 19th of February, 1794, at four o'clock in the morning, the commandant of the fort (Chateauvieux) accompanied by about 30 Dutch soldiers, announced to the author, and citizen Riche, another naturalist, that at the instance of Dauribeau and the principal officers of the expedition, they were under arrest. This arbitrary act was in consequence of news received from Europe. The commander hoisted the white flag, and put himself under the protection of the Dutch, who were then at war with France. The author and six others, scientific men and naturalists, were delivered up as prisoners at war, and the ships sold to the Dutch. The author was stripped of his valuable collection by the commander, and with his companions was forced to undergo great hardships, in travelling to Samarang, where they arrived the 11th of March. Most of the ships companies were thrown into the prisons of the Tomogen of Sourabaya, after which, some were transferred to those of Batavia, and others remained with Dauribeau. The author recites the ill usage they met with from the Governor, and the difficulty he had to make him sensible how harsh his conduct was towards men, who, on their return from a long and fatiguing voyage, undertaken for the advancement of the arts and sciences, considered themselves as entitled to a different reception among a civilized people. It was, however, with great difficulty and persuasion that they obtained the reversal of an order to shut them up in an

an hospital without chairs or tables, though none of them were sick.

In travelling from Sourabaya to Samarang, the author says he saw with surprise, (how natural) in the markets of several villages, shops filled with little square flat loaves of a reddish potter's earth, which the inhabitants call *tana ampo.* He at first imagined that they might probably employ these for scouring their cloths; but presently he saw the natives chew them in small quantities, and they assured him that they made no other use of them: and this too in sight of considerable plantations of rice. The cocoa-nut trees, on some of the heights on the island of Java had been stripped of their leaves by lightning; the terrible effects of which were often experienced by the natives: the abundant sap with which those trees are filled, contributes to attract the electric matter. The author relates the hardships he and his companions underwent before he was allowed to go to Batavia, to take the opportunity of returning to Europe: as also how his papers were saved from the hands of Governor Overstraaten who had been urged by Dauribeau to take them from him. Dauribeau was himself at Samarang on the 22d of August; and on the 31st of the same month, the author and Citizen Piron set out for Batavia. In his passage to this place he met with a Javanese, a subject to the Dutch, whose interesting history involves considerable odium on the colonial government of that state. The manner in which these governors contrive to make their moderate salaries amount to vast revenues, by contributions, monopolies, &c. is traced by the writer in a way truly revolting. The climate and abode of Batavia is so pernicious to Europeans, that he affirms, ninety out of every hundred soldiers, arriving from Europe, die within the year! Other Europeans, who there enjoy the comforts which opulence procures them, do not fall in the same frightful proportion. The author and his companions were confined in Fort Amkee during their stay at Batavia, the morasses round which place, as well as the enormous serpent called *Boa Constrictor*, he describes in the glowing language of a naturalist. The *Nathalie* corvette arrived, at length, from the Isle of France, with Citizen Riche on board, to claim the ships from the regency, but it was detained five months under the guns of two Dutch ships of war; nor was she allowed to sail for the Isle of France till March 29, 1795. On the 7th of May, Labillardiere arrived at the above island, and thence set sail for France, 20th of November. He reached the Isle de Bas on the 12th of March, 1796, and soon after repaired to Paris, where he learnt his collections had been carried

carried into England, but were soon restored in the way we have already spoken of. Some bread-fruit trees which he had entrusted to Lahaye, the gardener, when he left Sourabaya, and for which he had taken a receipt, were sent to the Isle of France, with others that gardener had cultivated. Some were planted on that island, others sent to Cayenne, and the rest to Paris, and planted in the hot-houses of the *Jardin des Plantes*.

This account of so important a voyage might have been much more interesting to navigators, if an able seaman engaged in the enterprize had been equally employed with the judicious naturalist in drawing it up. As it is, a botanical rather than a nautical colouring appears to prevail. No part, however, can be charged with neglect. The writer appears to have been observant and diligent throughout so long and troublesome a voyage. It is to be lamented that he was not on the best terms with the Chiefs in any part of the expedition, and it is doubly to be lamented, that the dispatches which arrived at Batavia, with the news of the French revolution should have operated like Pandora's box, and set the officers and crews of the expedition at enmity against each other; thereby increasing their individual difficulties and discomforts, and depriving the world of the benefit which might have arisen from their united experience and observation.

The translation contains fewer Gallic idioms, than are usually met with in works of the same kind; and though it may not be thought so entertaining as a voyage of professed discovery, yet it is by no means deficient in any thing which can gratify the curiosity of the navigator or the naturalist. The plates are well executed, and give life and additional interest to the whole.

ART. II. *A View of the Origin and Conduct of the War with Tippoo Sultaun: comprizing a Narrative of the Operations of the Army under the Command of Lieutenant General Harris, and of the Siege of Seringapatam. By Lieutenant Colonel Alexander Beatson, late Aid-de Camp to the Marquis of Wellesley, Governor General of India; and Surveyor General to the Army in the Field.* 4to. *pp.* 265, *and Appendix* 170. *Price* 1*l.* 7*s.* Nichol. 1800.

ALTHOUGH the origin and conduct of the war with Tippoo Sultaun are generally understood in a satisfactory way, both from the various official documents laid before Parliament,

Parliament, or communicated by the Court of Directors, and the publications which have been written by several persons of considerable talents and information; yet the present work possesses peculiar claims to attention, as it is derived from the most authentic sources, abounds in the most copious and correct details, and is sanctioned by the high authority of the Governor General of India. Several points which required explanation are cleared up; some erroneous opinions are corrected; accounts of military operations in the field are more minutely related than in any former publication, and the particulars of the siege of Seringapatam are given in an ample and interesting manner. The author's situation certainly supplied him with exclusive opportunities of gratifying public curiosity, and he has in almost every instance made a very advantageous use of them.

The present View was begun under the auspices of the Marquis Wellesley, who not satisfied with his general patronage of the undertaking, contributed every possible assistance and encouragement to the execution of it. Lieutenant Colonel Beatson appears to have enjoyed, in an extensive degree, the confidence of his Lordship, as he was appointed his Aid-de-Camp, Surveyor General to the army in the Field, when it became necessary to declare war against Tippoo Sultaun, nd was, on his return to England, in consequence of his bad state of health, entrusted with the dispatches from Government. He was allowed to peruse and to make extracts from his Lordship's official papers, upon the subject of the war: his own military journal must have furnished him with many valuable materials; and the sources which he consulted for information, with respect to the character and government of the late Sultaun, must have been both numerous and authentic. It is also necessary to observe, that his prospectus of the work, comprizing the heads of every occurrence from June 1798, until the partition and settlement of Mysore, received the approbation of the Governor General; and that he was, on his return to England, favoured by the Court of Directors with access to whatever documents were requisite to elucidate contested and abstruse points, and to complete his narrative to the latest period. Such are the advantages enjoyed by the author, and he has ably applied them to the execution of his task.

As the subject matter of the work is generally known, we shall, in a short notice of it, confine our observations to those parts which contain transactions and anecdotes that have not been previously communicated by any writer. We learn by the

the following note, that it was a casual circumstance of little moment which led to the negociation of the Sultaun with the French.

'Citizen Francis Ripaud, who commanded a French privateer, was by stress of weather, obliged to put into Mangalore in the latter part of 1796. He was there apprehended, sent to Seringapatam, and placed under restraint. By these papers, to which Colonel Kirkpatrick alludes, it appears that Tippoo Sultaun interrogated Ripaud with respect to the disposition and ability of the French to co-operate in his projected attack of the Company's possessions; and that Ripaud, (who is a violent Republican) with a view to excite the Sultaun to hostilities against the English, by encouraging him to expect a powerful co-operation of the French, and to effect his own delivery, magnified the resources of his nation, and induced the Sultaun to believe, that a very considerable force was already assembled at the Isle of France, and only waited his summons.

'These assurances had made an early and deep impression upon the Sultaun's mind: in the Sultaun's own hand-writing are these words; "*What occurs to my mind is this: to retain the Frenchman Ripaud as a vackeel;—to send two confidential persons with this Frenchman;—to satisfy the mind of the French nation;—and to require Christian forces.—Subject adjusted the 25th of March, 1797.*"

'The circumstance of Ripaud's arrival, therefore, evidently suggested to Tippoo Sultaun, the policy of deputing embassadors to the Isle of France, and eventually to France; and it gave rise to a question proposed by the Sultaun to the officers of his government, for their opinions and advice. This question was not, whether an offensive and defensive alliance should be formed with the French; but what should be the terms and conditions of such an alliance, which the Sultaun seems absolutely to have determined on. Notwithstanding this determination of their master, some of his principal officers ventured to express their disapprobation of the plan; most of them have expressed their opinions of the little dependence to be placed upon the faith of the French nation; and they all mention Ripaud in terms of abuse and contempt, and forcibly dissuade Tippoo Sultaun from conducting a negotiation of such importance, through the agency of a man of so low and despicable a character. However, the Sultaun's eagerness to prosecute his favourite plan of ruining the British power in India, rendered him regardless of the admonitions of his counsellors, and of the doubts which his own mind appears to have suggested to him of the faith and honour of the French nation. He was aware of the probable consequence of a disclosure of his intrigues; yet he could not resist the opportunity afforded by the arrival of this adventurer (of whose character he entertained suspicions) of carrying his favourite plan into effect, by the deputation of embassadors to the Isle of France. It is curious thus to trace one of the primary causes of the war in India, and the ruin of Tippoo Sultaun's power, to the accidental circumstance of Ripaud's cruize to the Malabar coast.'

The author gives a minute account of the judicious proceedings of the Government of India, and satisfactorily shews that wisdom in concerting, and promptitude in executing plans both of defensive and offensive operations constituted the characteristics of the Marquis Wellesley's administration. Tippoo seems to have been hurried to his ruin by the intemperate spirit of revenge; and from the commencement of his negociations with the French, to the moment of his death, he betrayed a want of common understanding, and a total deficiency of that art and cunning, for which the Princes of India are so remarkable. Notwithstanding the brilliant termination of the war, and the complete security which it has conferred on the British Empire in India, it will not be denied, that the contest was very unequal between both powers. The victories of the Marquis Cornwallis had considerably facilitated future operations against the enemy, whose resources were diminished, while those of the Company were proportionably augmented. The Indian army, which consisted of nearly 37,000 effective men (including the Nizam's cavalry), was most admirably equipped: supplied with every useful article, and as perfectly disciplined, and commanded by as excellent officers, in the respective departments, as any that ever took the field in India. The army on the coast of Malabar, under the command of General Stuart, was in the most efficient state, and the appearance of Admiral Rainier's squadron off Tippoo's coast could not fail to aid the enterprizes of the army, by discouraging the Sultaun's hopes of succour from the French. Our allies acted with good faith and vigour, and the Commander in Chief was wisely invested with powers fully adequate to the management of these numerous advantages. On the other hand, Tippoo's army had essentially suffered, both in discipline and numbers; his finances were in disorder; his councils perplexed by discordant opinions, and his spirits dejected by the disappointment of his hopes of French assistance, and the failure of his intrigues at the different courts of India, which he expected he should have been able to interest in his favour. Under such circumstances the author remarks,

'It was not presumption to expect the most decisive success, and the Governor General did not entertain the smallest doubt, that, under Providence, the issue of the expedition would be as speedy and prosperous as the means were abundant and unexampled.'

We agree with the author in his observation, that the character of Tippoo Sultaun has not yet been accurately delineated;

ated; but we think that he has been more successful in collecting authentic and interesting materials than any writer on the same subject. If an opinion is to be formed from these materials, he was unquestionably a weak, vindictive, tyrannical, and restless prince. Some intervals, indeed, evinced uncommon strength of mind; but the impression made by them on the observer, was soon obliterated by succeeding acts of folly. Several anecdotes are recorded of him that are new, and we shall select a few of the leading passages, best calculated to give a correct idea of a man whose ruin has so materially contributed to the consolidation of the British dominion and commerce in the East.

'All his actions of recent date, seem to have proceeded from the impulse of the moment; and it is impossible to trace any one fixed principle on which he regulated his conduct. His arrangements in every department conveyed the idea of an unsettled and capricious mind. Every year, often every month, presented a new change of system; and before it was at all comprehended, a fresh plan was introduced and as quickly abandoned: a particular set of features, or cast of countenance, was sufficient to raise one man from obscurity to splendour, and to precipitate another from honour to disgrace. His government may be said to have been in a state of incessant revolution; and, notwithstanding the minuteness and severity of his regulations, no prince was ever so grossly imposed upon. He does not appear, like the generality of Indian princes, to have been fond of hoarding his treasures; but, on the contrary, his pride was to have a number of dependents; and his indifference to the peculations of his servants was altogether unaccountable.

'He was fond of riding, and particularly excelled in horsemanship; he disapproved of palanquins, hackeries, and all such conveyances, as proper only for women. In his dress he was remarkably plain: he usually wore a sword slung across his body, with a dagger in his girdle. Whenever he went abroad, either on horseback or otherwise, he was accompanied by a numerous body of attendants, carrying muskets and fowling pieces; and with this retinue, he sometimes appeared on the ramparts during the siege.

'His thoughts were constantly bent on war and military preparations. He has been frequently heard to say, that in this world he would rather live two days like a tyger, than two hundred years like a sheep.

'When the Sultaun had any business of importance to transact, or any letters to dispatch that required deliberation, he always devoted one day to his own reflections, before he took the opinion of any of his counsellors. After having sufficiently considered the subject in question, he assembled the principal officers of the departments of the state, and writing in his own hand the nature of the subject to be preferred to their consideration, he required from each

person, an answer in writing. He derived little benefit, however, from these deliberations, as most of those who were acquainted with the Sultaun's disposition, accommodated their opinions to his wishes. Some, who had his welfare at heart, stated freely what they thought most beneficial, without paying any regard to his prejudices. On these occasions, the Sultaun never failed to manifest great resentment, which he expressed to others whose sentiments were similar to his own, by saying contemptuously, "What are these fellows talking about? are they in their senses? do give them a little understanding." His real friends, finding that their advice had no effect, but invariably proved injurious to themselves and their families, were compelled, at length, to regulate their opinions by his whims and prejudices. No person was allowed to be present at these deliberations, except the confidential Moonshies, and officers of the different departments.

'The Sultaun was extremely averse to spirituous liquors, and to all kinds of exhilarating drugs, the sale of which he prohibited throughout his dominions. When Meer Sadduck, his minister, represented to him the extent of the loss which he had sustained in the course of a few years, by his edicts against the sale of those articles, the Sultaun replied, "That kings should be inflexible in their orders; that God had forbidden the use of wine; and that he should persist in exacting a strict obedience to his edicts on that subject."

The account of the manner in which Tippoo Sultaun passed the day, is remarkable for minuteness of detail.

'The Sultaun generally rose at break of day: after being *champoed*, and rubbed, he washed himself, and read the Koran for an hour. He then gave audience to such of his officers, civil or military, as it was necessary for him to see upon public business; and afterwards spent about half an hour in inspecting the *Jamdar Khana*, which was a place where the jewellery, plate, fruit, and other articles were kept. Upon his return, his breakfast was prepared for him, and at this repast, a Moonshy and the three youngest children were generally present. On occasions of particular business, he shut himself up with his counsellors, and the children were not sent for. His favourites, and those whom he was in the habit of consulting, were Meer Sadduck, the Binky Nabob, Sied Mahommed Asoof, Purneah, Golam Alli, Ahmud Khan, (the late embassador to Poonah) and his principal Moonshy, or Secretary, Hubbeeb Oollah.

'During breakfast, the conversation, on the part of Tippoo Sultaun, turned chiefly on his past wars and exploits, and on his future projects; and this was the time when he dictated the heads of such letters, as he wished to be written. His diet at breakfast consisted chiefly of nuts, almonds, fruit, jelly, and milk.

'After breakfast he dressed himself in rich clothes, and proceeded to the Durbar, where he dispatched the ordinary affairs of his government:

vernment: upon other occasions, his dress was plain and coarse. It was his custom to review, every morning, the new levies and recruits, and to inquire into their cast, country, and the extent of their religious knowlege. If he was satisfied with their examination, they were, in consequence, entertained at a higher rate of pay; but if they were found deficient in a knowlege of the faith, they were delivered over to the Cauzy of the Cutchery to which they were attached, to be instructed in the principles of the Mahomedan religion. These examinations often lasted for several hours. In the evening, when the Sultaun had leisure, he commonly went out on horseback to superintend the discipline of his troops. He generally stood upon the outwork, before the Bangalore, or eastern gate; and from thence directed their exercise and manœuvres. On other days, he inspected the repairs of the fortifications and buildings.

'Returning to the palace, he received reports of the work done in the arsenals, manufactories, &c. the news of the day, and the communications from his spies and intelligencers. At this time, likewise, he delivered his orders, as well as his answers to petitions and letters from the different provinces.

'He generally passed the evening with his three eldest sons, one or two of the principal officers of each of the departments of state, a Cauzy, and Moonshy Hubbeeb Oollah. All these usually sat down to supper with him; and Hubbeeb Oollah asserts, that his conversation was remarkably lively, entertaining, and instructive. During this meal, he was fond of reciting passages from the most admired historians and poets: sometimes he amused himself with sarcasms upon the *Caufers*, (or infidels) and enemies of the Circar; and often discoursed upon learned and religious subjects with the Cauzy and Moonshy. Having dismissed his company, which he always did after the repast, he was accustomed to walk about by himself for exercise; and when tired, to lie down on his couch, and read a book, either upon the subject of religion or history, until he fell asleep. These were his usual occupations, except on days of important business, or religious ceremonies.'

The circumstances of the Sultaun's death, communicated by his head servant, Rajah Cawn, who accompanied him the whole of the forenoon on which Seringapatam was taken, are extremely interesting.

'He advanced towards the attack, and when within about two hundred yards of the breach, he stood behind one of the traverses on the rampart, and fired seven or eight times with his own hand, at such of the assailants as had advanced within shot. His head servant, Rajah Cawn, is of opinion, that three or four Europeans fell by the Sultaun's fire.

'When the Sultaun observed, that such of his own men as were in front had either fled or were killed, and that the storming party

was advancing towards him in greater force than he had at first apprehended, he retired along the north rampart. In his retreat he came up with one of his favourite horses, which he mounted, and proceeded eastward upon the rampart, till he came to the slope at the new sally-port, in the inner, or new rampart. Here he descended, still on horseback, and crossed the bridge which passes over the inner ditch. When he entered this sally-port, or water-gate, it was so much crowded that he could not make his way into the town.

'Whilst in this situation, the advance of the storming party, which had followed his track along the rampart, came up to the bridge, and on the first fire into the gate the Sultaun was wounded; upon receiving this wound, he advanced through the crowd three or four paces into the gateway; when some of the storming party having come up, the firing increased, and at nearly the same instant the Sultaun was shot through the left breast, and his horse wounded in one of his legs. At this time the gateway exhibited a shocking spectacle of dead and dying.

'The Sultaun having told Rajah Cawn that he was wounded, this faithful servant, who still remained with his master, proposed to him to discover himself; but the Sultaun said, "Are you mad? be silent." Rajah Cawn now endeavoured to disengage him from the saddle, in which attempt they both fell, together with the horse, amongst the dead and wounded men.

'Rajah Cawn was shot through the leg. The firing had now nearly ceased below the arch of the gateway; and a grenadier came up to Tippoo, (not knowing him to be the Sultaun) and seized his sword belt, with a view to strip it of the gold buckle by which it was fastened. The Sultaun instantly stretched out his right hand, (the lower part of his body being entangled amongst dead bodies) and snatching a drawn sword, which happened to lie within his reach, made a stroke at the soldier. The blow falling upon his musket, he made a second stroke at another soldier with more effect; and immediately afterwards was killed, by a musket ball which penetrated his right temple.'

Lieutenant Colonel Beatson concludes his valuable work with a general view of the advantages resulting to the British interests, from the conquest of Mysore; and a statement of the Company's annual resources within the first year of the Marquis of Wellesley's government.

It may be justly pronounced a faithful and impartial account, delivered in a clear and energetic style, of every essential circumstance connected with the origin, conduct, and termination of the war; and though several parts of the subject have been necessarily anticipated, it certainly contains a very considerable fund of new and interesting matter.

ART.

ART. III. *Phytologia; or, the Philosophy of Agriculture and Gardening. By Erasmus Darwin, M. D.* &c.

[*Continued from p.* 35.]

IN the seventh section the author examines *the organs of reproduction of vegetables.* On this important subject he widely differs from the theory of Linnæus, which he thinks too mechanically constructed, and unsupported by analogy. The Swedish naturalist supposed, that the medulla extends itself, till it bursts the inclosing and cortical part; and, joining with that, produces a new bud; a conjecture which Dr. Darwin considers as too mechanical for a living organized system, and totally different from any thing we know of sexual production, either in animals or flowers. Our ingenious naturalist very properly divides this chapter into three different heads of 1. *Laternal progeny*, 2. *Sexual progeny*, and 3. *Vegetable generation.* On the first of these modes of reproduction he acknowleges with great candour a mistake which he had committed in the thirty-second section of the Zoonomia, where he supposed that there is a communication of blood, or inosculation of vessels between the parent leaf, and the new bud in its bosom, and that this constituted the difference between paternal and maternal gestation. But that this inosculation, does not take place, may be proved by taking away the bark of the foot stalk of a leaf, and of the new bud in its bosom, because the remains of the arteries of the late leaf, as well as the rudiments of the new bud, are seen to terminate in the alburnum, or to penetrate the pith, but without any apparent communication: Dr. D. therefore suspects that the embryon bud is not served with vegetable blood from the vessels of the parent, but that it acquires both nutriment and oxygenation in a manner similar to that of the chick in the egg. He next ascertains the difference between the chick and the fœtus, and treats of their nutriment and oxygenation. The striking similarity which buds bear to their parent tree, is ably pointed out, and illustrated by the following curious observations of Mr. Knight, which are inserted in the Philos. Transact. for 1795, Part II. p. 292.

'Cuttings from seedling apple-trees of two years old were inserted on stocks of twenty years old, and in a bearing state; but these have now been grafted nine years; and, though they have been frequently transplanted to check their growth, they have not yet produced a single blossom. I have since grafted some very old trees with cuttings from seedling apple-trees of five years old. Their growth has been extremely rapid, and there appears no probability that their

time of producing fruit will be accelerated, or that their health will be injured by the great age of the stocks. A seedling apple-tree usually bears fruit in thirteen or fourteen years; and I therefore conclude, that I have to wait for a blossom, till the trees, from which the grafts were taken, attain that age; though I have reason to believe from the form of their buds, that they will be extremely prolific. Every cutting therefore taken from the apple, and probably from every other tree, will be affected by the state of the parent stock. If that be too young to produce fruit, it will grow with vigour, but will not blossom; and if it be too old, it will immediately produce fruit, but will never make a healthy tree, and consequently never answer the intention of the planter.

'The durability of the apple and pear I have long suspected to be different in different varieties; but that none of either would vegetate with vigour much, if at all, beyond the life of the parent stock, provided that died from mere old age. The oak is much more long-lived in the north of Europe than with us, though the timber is less durable; the climate of this country, being colder than its native one, may in the same way add to the durability of the elm; which may possibly be farther increased by its not producing seeds in this climate; as the life of many annuals may be increased to twice its natural period, if not more, by preventing their seeding.'

Dr. Darwin then suggests a very useful practical hint to florists, viz. that if the bulb of a tulip raised from seed has produced more perfect bulbs annually for five or six years, it will acquire the power of generating seeds; and if after this period the stem be pinched off, the next year's bulb or bulbs will, in his opinion, become more vigorous and luxuriant; and, if this be continued for three or four years, he supposes the double flowers may be formed, which are, perhaps, owing to a more luxuriant growth than was appointed by nature for the plant in question. In this circumstance especially consists the art of obtaining hyacinths, ranunculus's, and sometimes tulips, with such wonderful multiplication of nectaries, if we add the superfluous nourishment imparted to the plant by manure, warmth, and moisture.

On the analogy subsisting between this lateral production of vegetables, and that of some tribes of insects, we meet with excellent observations, from which the author concludes,

'That in sexual viviparous generation, the new entity, or embryon, is secreted by the male, and received into a nidus prepared for it by the female, and nourished by fluids secreted into the uterus, as they are required, which is probably owing to the stimulus of the fœtus against the sides of it; that in sexual oviparous generation a reservoir of nutriment is prepared, and inclosed in the egg, previous to the reception of the embryon, which is secreted by the male, and deposited in

in this reservoir of nutriment; because the fœtus in these animals is to be separated from the parent before its due maturity; and the egg, in which it is inclosed may be considered as an uterus, or womb, separated from the mother. And lastly, that in paternal or male generation the new entity, or embryon, is as certainly secreted from a gland of the male, but probably remains in an adapted reservoir belonging to this gland, correspondent to the vesiculæ seminales of most viviparous animals, and that here it exists like the cicatricula in the egg, and has a reservoir of nutriment prepared for it like that in the egg to support it; when the paternal leaf-bud by its death is separated from it in the autumn, as the egg is separated from its living mother.'

The author objects to the general axiom of the great Harvey, "all things form eggs;" and, in his opinion, lateral or solitary generation was probably the first mode of reproduction; for if any accurate knowlege can ever be acquired of animal generation, he thinks, it will be derived from a more nice attention to the production of the buds and bulbs of vegetables! The sexual reproduction is the master-piece of nature, as by it a countless variety of animals are introduced into the world, and much pleasure is afforded to those which already exist in it.

On the subject of *sexual*, or *amatorial*, *progeny of vegetation*, we have derived equal amusement and instruction from the author's remark; though we have often been led to wish that he had been less speculative and more practical throughout the work.

In the eighth and last section of the first part, the author treats of the muscles, nerves, and brain of vegetables. According to his ideas, they possess not only muscles and nerves, both of sense and motion, but also have volition and sensibility, enjoy sleep, are endowed with a sense of touch, smell, heat, light, and moisture; nay, Dr. D. charges them even with vicious desires, such as that of committing adultery. From their absorptions, secretions, senses, love, and sleep, he concludes *that they must possess a brain*; but does not attempt to decide whether it resides in the medulla or pith, which occupies the central parts of every bud and leaf like the spinal marrow of animals, or in any other part of the plant.

The *second part* of Phytologia, is by far the most important in the whole work; as from an accurate knowlege of the *economy of vegetation*, as far as it serves the purposes of agriculture and gardening, we may hope to derive essential advantages.

In the ninth section, the author inquires into the growth of seeds, buds, and bulbs. We conceive that the reader will require

require no apology, when, instead of continuing the analysis of a work containing such a diversity of subjects as the present, we propose to employ the remainder of the room allotted to this article, in giving detached extracts of the most interesting and practical facts, rather than waste it in theoretical speculations.

'If the seed of a plant be deprived of its cotyledons, or seed-lobes, soon after the root appears, it will continue to grow, but with less vigour, and is said to produce a dwarf plant from three to nine times less than the parent. Hence the seeds of plants, which are liable to produce too vigorous roots, and thence have not time to ripen their fruits in the short summers of this climate, or which fill our hot-beds with too luxuriant foliage, as melons, and cucumbers, should in this climate be kept three or four years; by which part of the mucilaginous, or farinaceous, or oily matter of the cotyledons becomes injured or decayed, and the new plant grows less luxuriantly.

'If the seed be deprived of the fruit, it will indeed vegetate, but with less vigour. Hence those seeds which are liable to produce too vigorous shoots for this climate, as the seeds of melons and cucumbers, should be washed clean from their pulp, before they are hoarded, and preserved three or four years before they are sown in hot-beds. But those seeds, which are sown late in the season for the purpose of producing winter fodder, as the seeds of turnips, should be collected and preserved with every possible advantage; and on this account new seed is much to be preferred to that which has been long kept.

'Owing to the secretion of saccharine matter at the foot-stalk of every leaf, and its collection round the joint of grasses, it happens that, when these joints are surrounded with moist earth, and are placed but a certain depth from the air, new buds will put forth round these joints, and strike their roots into the soil. Whence the agrarian husbandman may derive great advantage from transplanting his wheat, after it has produced a circle of new stems from the first joint of the straw; for, if he then parts and replants them an inch or two deeper in the ground, so as to cover the first joint of each of these additional stems, he may multiply every one of them four or six times, and thus obtain twenty or thirty stems from one original seed.

'It is customary to debark oak-trees in the spring, which are intended to be felled in the ensuing autumn; because the bark comes off easier at this season, and the sap-wood, or alburnum, is believed to become more durable, if the trees remain till the end of summer from their expending their saccharine sap-juice in the ensuing foliage, and thus being less liable to ferment and putrify. The trees thus stripped of their bark, put forth shoots as usual, with acorns on the sixth, seventh, and eighth joint, like vines; but in the branches I examined, the joints of the debarked trees were much shorter than those

those of other oak-trees; the acorns were more numerous; and no new buds were produced above the joints which bore acorns. From hence it appears, that the branches of debarked oak-trees produce fewer leaf-buds, and more flower-buds: which must be owing to the impossibility of their producing new caudexes down the naked branches and stem for the embryon progeny of leaf-buds.

'That the vessels of the alburnum, after their vegetable life is extinct, possess a power of capillary attraction of the sap-juice, or of permitting it to pass through them occasionally, appears from the following experiments. First, a branch of a young apple-tree was so cankered, that the bark for about an inch quite round it was totally destroyed. To prevent the alburnum from becoming too dry by exhalation, this decayed part was covered with thick white paint; in a few days the painting was repeated, and this three or four times, so as to produce a thick coat of paint over the decayed part, or naked alburnum, extending to the ascending and descending lips of the wound; this was in spring, and the branch blossomed and ripened several apples.'

In the tenth section the author treats of *manures, or the food of plants*. On this highly important theme he first observes, that the *sap-juice* of vegetables is similar to the chyle of all animals; that it consists of water, sugar, mucilage with carbon, phosphorus and calcareous earth; and that vegetables possess low heat and cold blood, like winter sleeping animals.

After taking a concise view of the principal discoveries of modern chemistry, with respect to the composition of the atmosphere, Dr. Darwin remarks that,

'There is a curious evolution of oxygen attending the perspiration of the leaves of plants, which is not known to attend that of animal lungs; and that is, that when vegetable leaves are exposed to the sun's light, they seem to give up oxygen gas; but in the dark they give up carbonic acid gas, like the breath of animals. It is probable that animal lungs might do the same, if they were exposed to the light; as perhaps might be subjected to experiments in the gills of fish, or by breathing through a tube into water in the sunshine.'

Under the head of *water*, we met with a variety of acute and pertinent reflections; from which we shall extract the following passages:

'The due irrigation of the soil is much attended to in drier and warmer countries; as in Italy, Egypt, and some parts of China; where numerous canals, and aqueducts, have been dug through hills, and carried over vallies, for the purpose of watering the soil; and even in this colder and moister climate, the practice of flooding land is coming daily into greater repute. For this occasional suffusion of water

water over land not only supplies simple moisture for the purposes above-mentioned in the drier parts of the seasons, but brings along with it calcareous earth and azotic air from the neighbouring springs, or other manures from the rivers. Calcareous earth may be detected in the water of all those springs which pass under or over strata of marle or limestone, by dropping into them a solution of salt of tartar; or of sugar of lead in water, or of soap in spirits of wine; and a portion of azotic gas was discovered in Bath-water by Dr. Priestley, and in Buxton-water by Dr. Pierson. Dr. Home thinks he discovered nitrat of lime in hard water, and found by his experiments, that it promoted the growth of plants in a much greater degree than soft water.

'A question here occurs, whether it be advantageous to plough level plains into ridges and furrows? The Chinese are said never to divide their fields into ridges and furrows, but to plant their grain on an even surface. Embassy to China by Sir G. Staunton, Vol. III. p. 197, 8vo. edit. Some think it an error to suppose, that any increase of crop can be thus obtained, as no more plants can rise perpendicularly from the ground; but in the ripening of grain the surface of air to which the ears are exposed is also to be considered, which corresponds with the surface of the ground, and is encreased by its being laid in hill and dale. But there is a serious objection to this mode of ploughing in moist situations without sufficient declivity, as the corn in the furrows appears weak and backward owing to the rain lying on it too long; and also to the best part of shallow soils being frequently taken from them to construct the ridges.

'There are methods of procuring or preserving the salutary moisture of the soil, besides those of canals and aqueducts, which should be here mentioned. These are by using, as manures, such substances as perpetually attract moisture from the lower part of the soil, or from the atmosphere; as quick-lime, and vegetable and animal recrements in the act of putrefaction.

'In hot-houses some have already employed steam as a means both of giving warmth and moisture to the included plants, or to the soil in which they grow; and a great variety of forcing pumps have been constructed for the purpose of moistening the foliage of wall-trees; but there is a hope from the present great progress of chemical research, that a means may some time be discovered of precipitating the water of the atmosphere, which the ingenious Bishop Watson thinks always exists in it in such quantity as, if it was suddenly precipitated, might again deluge the world.'

On the subject of *phosphorus* our author remarks that, in his opinion, it exists universally in vegetables, and is probably a simple substance: he supposes that it is taken up entire by the absorbent vessels of vegetables, when met with in a state of solution, though it may, occasionally, also be formed and secreted by them: on this account Dr. D. places phosphorus among the articles of their food or sustenance. We cannot however

however subscribe to this vague conjecture, as it appears to us incompatible with the harmony subsisting among the works of nature, that she would, construct such vessels as may serve, "occasionally," both for the formation and secretion of a substance which may also be useful as an article of food for organized bodies. Is it not probable, that phosphorus is generated only from vegetables after their dissolution, and when they are exposed to the influence of the atmosphere, or other external causes? But instead of consuming time and room with hypothetical researches, we shall extract here the account given by the author of the various properties of *lime*, which render it so valuable a manure for almost every kind of soil. Having observed, that Mr. Browne of Derby has asserted, that recent vegetables, as clover, laid on heaps and stratified with fresh lime, are quickly decomposed, even in a few days, Dr. Darwin adds that, in his opinion

'The heat occasioned by the moisture of the vegetables uniting with lime, quickens the fermentation of the vegetable juices and produces charcoal in consequence of combustion, similar to that frequently produced in new hay-stacks, which, if air be admitted, burst into flame.

'Secondly, lime for many months continues to attract moisture from the air or earth; which it deprives I suppose of carbonic acid, and then suffers it to exhale again, as is seen on the plastered walls of new houses. On this account, it must be advantageous when mixed with dry or sandy soils, as it attracts moisture from the air above, or the earth beneath; and this moisture is then absorbed by the lymphatics of the roots of vegetables.

'Thirdly, by mixing lime with clays it is believed to make them less cohesive; and thus to admit of their being more easily penetrated by vegetable fibres.

'Fourthly, a mixture of lime with clay destroys its superabundancy of acid, if such exists; and by uniting with it, converts it into gypsum, or alabaster.

'Fifthly, when lime is mixed with a compost of soil and manure, which is in the state of generating nitrous acid, it arrests the acid as it forms, and produces a calcareous nitre, and thus prevents both its exhalation and its easy elutriation.

'And lastly, fresh lime destroys worms, snails, and other insects, with which it happens to come in contact, and with which almost every soil abounds.

'An improper situation for the use of lime is said to be on those lands, which are too wet, and which therefore should be previously drained; otherwise the lime is said to coalesce into a kind of mortar, and becomes so hard, that the tender plumula of growing seeds, or the fine extremities of their roots, cannot easily penetrate it. This may occur more certainly in that kind of lime, which contains manganese, and

and is therefore capable of setting under water; as, I suppose, the barrow lime of Leicestershire, and agnes lime near Ashbourn, in Derbyshire.

'The great and general advantage of lime in all soils and all situations, except some of those which are already replete with calcareous earth, or are too moist, can only be understood from the idea already mentioned, of its supplying actual nutrition to vegetables; and this seems more probable, as it contributes so much to the melioration of the crops, as well as to their increase in quantity. Wheat from land well limed, is believed by farmers, millers, and bakers, to be, as they suppose, thinner skinned; that is, it turns out more and better flower; which I suppose is owing to its containing more starch and less mucilage.

'Hence we perceive another very important use of lime in cultivation of land may be owing to its forwarding the conversion of mucilage into starch, that is, to its forwarding the ripening of the seed; which is a matter of great consequence in this climate of short and cold summers.

'In respect to grass-ground I am informed, that if a spadeful of lime be thrown on a tussock, which horses or cattle have refused to eat for years, they will for many succeeding seasons eat it quite close to the ground; which is owing, I suspect, to the grass containing more sugar in its joints; or to the less acidity of all its juices.'

When treating of clay, the author makes the following practical and curious remarks:

'As clay is less adapted to the growth of the roots of plants, by the too great cohesion of its particles, this may be in some degree corrected by frequently exposing it to air imprisoned in its interstices, as by turning it over by the plough or spade. Another method is by planting on it such vegetables first as are known to grow well in clay, as beans, and as their roots are afterwards left in the clay, they not only thus form tubes in it, so as to render the mass less cohesive, but add to it so much carbon, and thus rather enrich than empoverish it. Add to this, that the lower leaves of the dense foliage of these vigorous vegetables are believed to give out much carbonic acid, by their respiration in the shade similar to the respiration of animals; which perpetually sinking down upon the surface of the soil is believed to supply it with carbon; and thus also to render it more nutritive to other vegetables, which may afterwards grow upon it.

'Lord Kaimes, who allows that clay, if it be moistened after it has been pulverized, becomes on drying, as indurated and cohesive as before, asserts, that this does not happen, if it be moistened with the fluid, which escapes from dunghills; which may be owing both to the carbon, and to the fixed vegetable alkali, which that fluid contains. And also adds, that lime will prevent the cohesion or induration of clay, and therefore greatly improves argillaceous soils for all the purposes of agriculture.'

The

The processes of spontaneous decomposition of vegetable and animal bodies have commonly been divided into the vinous, acetous, and putrefactive fermentations, which have been supposed uniformly to succeed each other; but Dr. Darwin is of opinion that different kinds or parts of dead organized matter may be subject to various chemical changes, and that these may vary with the different degrees of heat, the quantity of water, and of air, with which they are surrounded. Hence the author very ingeniously says:

'The art of cookery, by exposing vegetable and animal substances to heat, has contributed to increase the quantity of the food of mankind by converting the acerb juices of some fruits into sugar, as in the baking of unripe pears, and the bruising of unripe apples; in both which situations the life of the vegetable is destroyed, and the conversion of the harsh juice into a sweet one must be performed by a chemical process; and not by a vegetable one only, as the germination of barley in making malt has generally been supposed.

'Some large round austere pears were yesterday, November 20, shewn me after having been nine hours in the oven behind a kitchen fire covered some inches with water in a steam-pot. On tasting them they were sweet, and soft, and appeared to have had at least the heat of boiling water. They were replaced in the oven, and kept in it twelve hours longer; and then became nearly as sweet as syrup or treacle; which might in part have been occasioned by the evaporation of half the water. From this curious circumstance there seems reason to conclude, that in a degree of heat about that of boiling water, the saccharine process may succeed; and at the same time, that the process of fermentation may be prevented from existing; which I hope may induce some chemical philosopher to investigate by experiments this curious and important subject.

Some circumstances, which seem to injure the life of several fruits, seem to forward the saccharine process of their juices. Thus, if some kinds of pears are gathered a week before they would ripen on the tree, and are laid on a heap and covered, their juice becomes sweet many days sooner. The taking off a circular piece of the branch of a pear-tree, causes the fruit of that branch to ripen sooner by a fortnight, as I have more than once observed. The wounds made in apples by insects occasion those apples to ripen sooner; caprification, or the piercing of figs, in the island of Malta, is said to ripen them sooner; and I am well informed that, when bunches of grapes in this country have acquired their expected size, that if the stalk of each bunch be cut half through, they will sooner ripen.'

With respect to chemical manures, or such as are produced by chemical decomposition, the author observes, that sugar and mucilage are certainly absorbed by vegetables, without being reduced to their component elementary parts: he supports this assertion by an illustration afforded in the sap-juice flowing

flowing in the vernal months from the wounds of birch and maple-trees; which juices unquestionably undergo the vinous fermentation and produce an excellent and wholesome wine. We can assure the author, that contrary to the opinion of a modern chemist, this process is annually effected in Sweden and other northern countries, without the addition of mucilage.

It is indeed true, that the putrefaction process may, in some materials, be forwarded by heat, which in a manner destroys the life of the material; but we much doubt whether Dr. Darwin's friend, who spoiled twenty strikes of potatoes by drying them on a malt kiln, with a view to convert them into a more mealy substance and better preserve them during the summer months, was properly acquainted with this process: according to our experience such potatoes ought to be previously dipped for a few minutes in boiling water, in order to deprive them of their superfluous mucilage, and afterwards well dried, either in a moderately heated oven, or in a proper malt kiln.

The subsequent remarks, however, on this useful root, appear to us sufficiently interesting to be extracted verbatim:

'That potatoes, which have undergone a certain degree of heat, contribute more to fatten all kinds of animals, arises from the acrimony of their rinds being destroyed, and from their austere juices being converted into mucilage, and perhaps, a part of their mucilage into starch, and are hence ready for the saccharine and oily processes of animal digestion. A very convenient method of exposing them to steam is described in a late ingenious publication of the Agricultural Society. A small boiler is set in brick work under a shed, so that the flame of wood or coal may pass spirally round it. It should be covered with a double lid of tin or wood, to prevent much heat from escaping: and may have a sand-joint to keep the steam in, or a little moist clay, or even a wet flannel put circularly round the cover, may answer this purpose.

'Near this furnace is to be fixed a large barrel on one of its ends, with a cover on the other end; which may be occasionally opened to admit potatoes, and closed again so as to confine the steam which is to be derived into it from the boiler, by a double pipe one within the other, of tin or wood, about two inches in diameter. By these means a large quantity of potatoes may be rendered much more nutritive to animals, and I suppose to vegetables, (if they are used as manure,) as they may thus probably be absorbed by their lacteals or lymphatics, without being so much decomposed as by the putrefactive process; and thus produce nutriment in less time, and by less labour of digestion.

'If the steam could be made hotter than boiling water, which it possibly may in the vessel above described, if the water in it rises but

but a few inches, and the steam after it is produced, is heated above 212 degrees by the sides of the boiler above the water, round which the flame plays spirally; the steam thus made hotter might probably render the potatoes more mucilaginous or more starchy.'

The benevolent author occasionally extends his observations to the benefit of the poor; and we think them highly deserving the attention of those who have lately displayed their talents in discovering substitutes for bread and animal food, while they have endeavoured to teach the indigent classes of society, the *cheapest* and most nutritive methods of living. If the motives of these neo-philanthropists be *genuine*, the reward of their own conscious rectitude cannot be heightened by the additional praise of anonymous reviewers; and we shall on this occasion only remind them of the old adage which is commonly bestowed on the luxuriant dignitaries of the church, namely, that "charity covers a multitude of sins." Were we allowed to offer an opinion with respect to the probable influence of such pseudo-charitable attempts, on the national character of a people, we should not hesitate to declare with firmness and candour, that they cannot fail to produce indolence and servility approaching to slavery; and that in a country which abounds in wealth and resources for improving its agriculture, as well as its domestic and commercial arts, there would be little or no occasion for *soup shops* or poor houses, (the terror and dread of Englishmen!) if the promoters of charitable institutions, instead of teaching us how to live on the cheapest terms, would take equal pains in devising useful employments, and introducing the more simple and easy species of manual labour, such as are now practised with the best effects, at Hamburgh and Munich in Germany. Whether the following suggestions of Dr. Darwin may be practicable in this country, where the greatest aversion prevails against any other but wheaten bread, we shall not attempt to decide.

'In times of great scarcity there are other vegetables, which though not in common use, would most probably afford wholesome nourishment, either by boiling them, or drying and grinding them, or by both those processes in succession. Of these are perhaps the tops and the bark of all those vegetables which are armed with thorns or prickles, as gooseberry trees, holly, gorse, and perhaps hawthorn. The inner bark of the elm-tree makes a kind of gruel. And the roots of fern, and probably very many other roots, as of grass and of clover, taken up in winter, might yield nourishment either by boiling or baking, and separating the fibres from the pulp by beating them; or by getting only the starch from those which possess an acrid mucilage, as the white briony.'

On the manner of improving *manures by the propagation of insects*, the author gives several judicious hints, of which we shall communicate the following:

'Another mode by which vegetable matter may be decomposed in the summer months, and at the same time the quantity of manure increased, is by the depredation of insects, as is seen in wood, which is so far decomposing as to become tender, and is then consumed by various kinds of insects, whether it be buried beneath the soil, or exposed to the air. And I suspect, that the excrement and the bodies of such insects would supply more nutriment to vegetable roots, than if the vegetable recrements were left to their spontaneous or chemical dissolution; as I suppose the bitter excrementitious powder in a filbert, and the well fed maggot, before it erodes its way out, would fertilize more barren soil than an emulsion of the kernel.

'An ingenious observer of nature, conveyed water on a dunghill in the summer months, in such quantity as to make a kind of semifluid chaos, for the purpose of animating the whole mass. It became full of insects, and was used in the autumn as manure; and he believed with much greater powers, than it would have otherwise possessed.'

With respect to the *preservation and application of manures*, we shall only take notice of those substances which Dr. D. considers as contributing most to the luxuriant growth of vegetables, or supplying the most nutritive food of plants: namely,

'All kinds of animal and vegetable substances which will undergo a spontaneous solution, as the flesh, fat, skin, and bones of animals; with their secretion of bile, saliva, mucus; and their excretions of urine and ordure; and also the fruit, meal, oil, leaves, and wood of vegetables, when properly decomposed on, or beneath, the soil.'

(To be concluded in our next.)

ART. IV. *Discourses on Domestic Duties. By Samuel Stennett, D. D. 8vo. pp. 476. 5s. boards. Ogle.* 1800.

PULPIT instruction seems never to be so well calculated to do good, as when engaged upon the duties of particular persons. General subjects are usually slighted, or regarded only in a general manner. When the address comes personally home to our particular character, circumstances or situation, we cannot well avoid some degree of self-examination. Our blessed Saviour and his apostles, modelled their discourses upon this plan, and if the minister of the Gospel would wish to discharge his evangelical office in an evangelical manner, he

he will be careful to copy after this high example. The relative or social duties can never be too minutely explained, or too forcibly and frequently inculcated. When it is considered that the happiness of families, and the religious character of individuals, depend much upon the due regard that is paid to social obligations, it will be seen that the Christian minister is bound to explain the nature of those obligations in the clearest manner, and to enforce them with the strongest arguments, to the understandings and consciences of his hearers.

In the volume now before us we have a series of excellent discourses upon the following subjects:

'I. The Duties of Benevolence considered and enforced, *Text, Phil.* ii. 4.—II. Family Religion in general, *Joshua* xxiv. 15.—III. Family Worship, *Rom.* xvi. 5.—IV. Reciprocal Duties of Husbands and Wives, *Eph.* v. 33.—V. Duties of Parents to their Children, *Prov.* xxii. 6.—VI. Duties of Children to their Parents, *Eph.* vi. 1, 2, 3.—VII. Duties of Servants to Masters, *Eph.* vi. 5, 8.—VIII. Duties of Masters to Servants, *Eph.* vi. 9.—IX. Domestic Friendship, *Psalm* cxxxiii.—X. Hospitality, 1 *Pet.* iv. 9.—XI. Convivial Intercourse, *Job* i. 4, 5.—XII. Heaven considered as a Family, *John* xiv. 2.'

These important subjects are treated with admirable perspicuity, and in a neat and expressive stile. Nothing is left untouched which it became the public teacher to notice and recommend. Every obligation is accurately explained, and supported upon the principles of sound reason, as well as by arguments drawn from the oracles of sacred truth. There is an amiable warmth in the exhortations which cannot but sensibly affect the heart; and yet there is nothing of that fervour which distinguishes the orations of enthusiasts. Dr. Stennett's Sermons are calculated to melt down the passions without burning them, and to produce serious Christians rather than fiery ones. To speak our judgment candidly, we know of no better model in the English language for sober preachers than the volume of discourses at present under our notice. As a specimen we shall make one extract.

Discoursing on the importance of a good education to the *interests of civil society*, and noticing the care taken by Moses, the Spartans, and the Romans, in this respect, Dr. Stennett observes,

'Now, what good man is there who does not wish to see his country prosper, trade and commerce flourish, the arts and sciences held in reputation, health and plenty abound, and peace, harmony, and good-will prevail among all ranks of men? These are very desireable blessings: every individual, as well as the community in

general, is affected by them. But how can these blessings be expected, if no pains are taken to form the morals of youth, to instil the principles of virtue into their minds, and to fit them for the part they are to act in society? On the contrary, these great duties neglected, what is to be apprehended but the most fatal consequences? Let any one sit down and figure to himself the calamities which have befallen kingdoms, once famed for their wealth and splendour, but now sunk into oblivion; let him consider by what means they arose to that pitch of greatness which drew the attention of the whole world to them, and by what means again they were precipitated into destruction: let him reflect on the strange combination of circumstances which operated to their prosperity and their ruin, and mark particularly the influence of education thereon. And then let him say, whether the importance of education to the well-being, to the very existence of society, can be estimated too high.

'The inhabitants of those states just referred to, trained up from their youths to habits of integrity, temperance, activity, and honour, were united to one another by the firmest bands, became capable of the noblest exertions, patient of fatigue and disappointment, and superior to baseness, treachery, and cruelty. So they acquired wealth and greatness. But, alas! in a course of time, enjoying the luxuries of life in the greatest profusion, and with them every species of gratification, the national character for which they had been so famed took a turn; their ancient hardiness and simplicity degenerated into sloth and effeminacy; their faculties were enervated, and their morals corrupted; honour and good faith yielded to avarice and cunning. Amidst the greedy pursuits of self-interest, the general good was overlooked, the welfare of posterity disregarded, and the education of their children, an attention to which laid the foundation of their greatness, was wholly neglected.

'And what was the tremendous consequence? No other than might naturally be expected. Civil feuds and animosities were excited, the laws trampled under foot, public authority treated with contempt, the nerves of government relaxed, the national counsels infatuated, mutual confidence broken, and the horrors of inhumanity, oppression and violence, spread far and wide. Neighbouring powers availed themselves of these internal divisions. Their country was invaded, their wealth captured, their towns desolated, their wives and children carried into wretched captivity, themselves slain by the sword, and their name, as a people, marked in the faithful page of history with as great reproach and infamy, as that of their ancestors had been with respect and honour.

'And now, if this account of the matter be true, how can he be a patriot, a real friend to his country, who is remiss in the discharge of the duties he owes to his children? If, indeed, men have lost all natural affection, and are become down-right brutes, I am sensible this argument will have no effect. But it is to be hoped this is not yet the case with us. If, then, we have any concern for the welfare of posterity, any desire that our country may exist to a late period of time,

time, any passion for its future reputation and honour, any anxiety about the present state of affairs, any wish that we may emerge out of the calamities in which we are involved, resume our former lustre, and enjoy again the great national blessings of peace, unanimity, and prosperity; let us acquit ourselves as good members of the community, and be persuaded, from the love we owe to our country, as well as to our children, to give them every advantage of a virtuous education within our power."

These excellent exhortations were made many years ago, for we believe the first edition of Dr. Stennett's discourses appeared in 1783; yet are they strikingly appropriate to the present period. We cannot conclude this article without earnestly recommending this volume to all heads of families, who would do well to read the discourses on Sunday evenings to their children and servants.

ART. V. *A Letter to the Right Honourable Lord Somerville, one of the Lords of his Majesty's Bedchamber, and late President of the Board of Agriculture, with a View to shew the Inutility of the Plans and Researches of that Institution, and how it might be employed in others more beneficial. With Remarks on the recent Communications of the Board, and a Review of the Pamphlets of Arthur Young and William Brooke, Esqrs. upon the Present High Price of Provisions. By a Society of Practical Farmers.* 8vo. *pp.* 141. 3*s.* *Cawthorn.* 1800.

THE writers of this pamphlet, who address Lord Somerville on the part of themselves, and a very large portion of the inhabitants of Great Britain, appear to be fully acquainted with the real agricultural interests of the country, and the best means of promoting them. They speak their sentiments with great boldness, and sometimes with great severity of censure; but they are entitled to minute attention, from the excellent principles which they lay down, and the improvements they disclose, as connected with practical knowlege. They begin with observing, that they had formed an opinion, that the first proceedings of the Board of Agriculture would have consisted of general enquiries into the physical and other causes of the impediments to agricultural improvements, and then give the following list of some of the primary subjects, which they consider as possessed of peculiar claims to the investigation of the Board.

'As to the too wet state of particular districts.

'The breaches of banks and overflowing of rivers;

'Oozings of springs.
'The soke of internal water.
'Overflowing of water from higher lands.
'Rain-water retained in stiff soils.
'Low lands subject to be overflowed by the sea.
'Injurious attempts at partial drainage in large districts.
'Injuries sustained by the proprietors of different districts from not classing and incorporating themselves for the purposes of general and particular benefit.
'Delay of improvement in not gaining land from the sea, and partial washes at the mouths of rivers.
'Injuries which proprietors of marshes sustain in dry seasons for want of supplies of fresh water.
'Present plan of driving fat oxen 150 miles to be slaughtered for the Navy.
'The general want of drainage of large districts.
'The neglected state of his Majesty's forests.
'Injurious plan of leasing the Crown lands at high rents.
'Present plan of inclosing common fields, attended with unnecessary expences.
'The same with commons and wastes.
'Standing orders of the Houses of Parliament.'

It has been very justly observed, that a system of drainage should, if possible, be of a general nature, and calculated in its operation to improve the whole of the district in which it may be introduced; for cases have very frequently happened, in which, by means of the prescriptive rights and privileges of the crown, or of particular individuals, a small part of a district or parish has been drained, while lands of more considerable value have been entirely neglected, and perhaps materially injured, by a partial drainage. The authors therefore propose the classification and division of large districts, and division of large districts under the particular heads of improvement of which they are capable, and the cordial union of the effective proprietors for the purpose of carrying into execution such measures of improvement as may be thought salutary. The absurdity of driving fat cattle one hundred and fifty miles, occasioning the feverish condition of the animals, and an additional expence to the country, instead of sending the butcher that distance into the country to slaughter and salt them, is very properly noticed. The observations on the forests and crown lands, particularly the latter, are just, and indeed unanswerable.

With respect to the inclosing of common fields, it is suggested, as the means of lessening the expences of dividing and laying them out, that two commissioners only be appointed with

with a power for them to call in an umpire in cases of disagreement, and that the appointment of an attorney, or clerk, to such commissioners might be dispensed with. We trust this suggestion will be adopted, as the clerk's fees are equal to those of the commissioners, and he has very rarely occasion to write more than twenty or thirty lines in a week. The authors also point out to the Board the necessity of a regulation, that upon a requisition from the proprietors to the commissioners, in cases of dividing, allotting, and inclosing commons and waste lands, a proportion of such property should be sold for the purposes of passing and carrying the acts into execution. A regulation of this kind would be attended with the most essential advantages, as it would enable the proprietors of small allotments to enter upon their new estates without incumbrance.

The writers of the pamphlet admit that his Lordship, and some active members of the Board, have been laudably occupied in an inquiry into the comparative excellence of certain varieties of sheep, but seem to regret that no benefit has resulted from the inquiry; as no decided conclusion can be formed of the superior excellence of any particular sort. They recommend to his Lordship a greater progress in experiments and judicious selections, out of many improved varieties, in order to examine the effect of blending the greatest number of the most valuable peculiarities together, and concentrating them in one breed. Care should, however, be taken to preserve distinctly the improved original breeds, as they are, in most instances, adapted to the different soils upon which they are found. The remarks upon land-valuers, commonly called surveyors, should be generally known.

'The office of a Land Surveyor was formerly confined to the geometrical operations of admeasuring and planning landed property: in the present age a tribe of men have sprung up, who have united with that office a kind of mysterious juggling art, in ascertaining the value of land, commonly known by an appellation, not very inaptly called 'land tasting.' In the country it is assumed by mere measurers of land, schoolmasters, and broken innholders, not possessing the least practical knowlege in the cultivation of land. Can any thing be more ridiculous than the calling a modern auctioneer from the pulpit in Garraway's Coffee-house, or from the pavement of London, to value landed property?—Men whose habits of life could not give them any opportunity of understanding any of the leading principles upon which their qualifications ought to be founded. The better part of such practitioners are a sort of practical husbandmen, who, from a restless disposition, neglecting their own original occupations, assume this office; but who, from their confined situations in par-

ticular districts, are, for the most part, destitute of that general knowlege which is absolutely requisite for the forming a true estimate of the value of landed property. In the metropolis, valuers of land are as plentiful as death-hunters; every upholsterer, feather-bed-beater, and auctioneer, from Whitechapel to Hyde-Park-corner, will undertake to value and let land in any situation, and in any quantity. Men to whom, from their habits of life, you ought to pay no attention, in concerns of so much general, as well as private importance.

'Your Lordship's good sense will readily admit that the qualifications for the office of a general valuer of estates, and a commissioner upon inclosures, can only be found in men well versed in the practical husbandry of the most improved counties, as a stock on which subsequent observation and general experience in the management of landed property should be grafted.

'We presume that this subject demands the most serious consideration of the Board.'

With respect to the plan proposed by Sir John Sinclair for establishing by subscription, a "Joint Farming Stock Society," we think, with the *Society of Practical Farmers*, that it is a chimerical project, and that such a combination would, like the East India, or any other overgrown trading company, lead to *monopoly*, with this dangerous difference, that the monopoly of the latter extends to luxuries which we may purchase or reject; of the former, to the absolute necessaries of life.

This part of the pamphlet concludes with the following salutary admonitions:

'We now beg to take leave of your Lordship, with a recommendation to you and the other Members of the Board of Agriculture, that instead of contributing to the establishment of experimental farms upon Sir John Sinclair's plan, which, in all human probability, will have as little success as your secretary's method of feeding pigs, you endeavour to cultivate, near your respective seats or residences, certain portions of land according to the most generally adopted sizes of farms in your several neighbourhoods, upon plain, rational systems of agriculture, agreeably to the nature of the respective soils. We request you to unite the best known and improved practical husbandry with the improvement of the species of sheep, and other stock, which are peculiar to the respective districts. We also exhort you to publish annually a journal of farming proceedings, and a debtor and creditor account of profit and loss, taking especial care not to leave out the rent. This we humbly conceive to be the most rational mode of immediately improving the agriculture of the country, and of producing an accumulated fund of food for man and beast, and of general prosperity and riches.

'There will always be found noblemen and gentlemen of opulent fortunes,

fortunes, who will devote a portion of their time and property to experimental husbandry, a thing that may easily be accomplished by setting apart a certain portion of land merely for that purpose, and totally unconnected with practical husbandry.'

In the strictures on the publications of Mr Arthur Young—"The question of scarcity plainly stated, and remedies considered," and "General view of the agriculture of the county of Lincoln," the writers have certainly exposed the ignorance of Mr. Young in affairs well known to the ordinary farmer, but they have also displayed an acrimony unbecoming plain blunt speaking men, as they call themselves. They seem to think that acrimony and bluntness are synonymous. The comments upon "the communications to the Board of Agriculture on subjects relative to the husbandry and internal improvement of the country," are generally dictated by impartiality, and evince a correct knowlege of the subjects to which they relate. Mr. William Brooke's pamphlet entitled, "The True Causes of our present Distress for Provisions, &c. &c." is proved, in a variety of instances, to contain both dangerous principles, and fallacious statements. The latter gentleman appears indeed to be nothing more than a mere theorist in agriculture.

The promotion of the public good has, we entertain no doubt, been the only motive which has influenced *the Society of Practical Farmers* to offer this pamphlet to every person concerned in the agriculture of the country, the chief source of our happiness and prosperity; and to those who *can distinguish* between practical and theoretical farming it must prove highly interesting. When we reflect that *knowlege is power*, we are almost inclined to think, after the careful perusal of the present publication, that the Board of Agriculture is still in its infancy, and that it will be long before it can acquire a competent share of knowlege to enable the speculative members who compose it, to superintend the proceedings of those who are but practical husbandmen. We cannot conclude the present short sketch better than by quoting the words of the authors.

'These hints, therefore, important only as far as they are true, we recommend to the mature consideration of your Lordship and the other members of the Board of Agriculture, begging that you will impress them strongly on the minds of men in power. And we call on the united exertions of all men of rank, talents, influence, and property, to co-operate with you in extending the practical knowlege of that science to which all others are subordinate, instead of wasting your time on frivolous pursuits or airy speculations.

'A theory

'A theory without experience or practice stands upon no basis: it resembles a beautiful tower built on a volcano, in perpetual danger of being blown up or of sinking in the abyss. Cherish and encourage, then, the practical husbandman, that he may instruct and guide your sons to the true path of national happiness. Let agriculture be the primary object of all; not only because it "creates a more plentiful supply of food, but as morally and politically conducing to the true happiness of man, by giving him the occupation whence flow health, social order, and obedience to lawful authority." For how contemptible do the brightest pursuits of Fame appear when opposed to the simple merit of doing good to mankind!'

ART. VI. *The Law of Executors and Administrators. By Samuel Toller, Esq. of Lincoln's-Inn, Barrister at Law.* 8*vo. pp.* 414. 8*s. boards. Butterworth.*

SEPARATE and distinct treatises upon those subjects of law and equity, which immediately relate to the common concerns and transactions of life, are generally received by the public with an avidity much greater than their merits always warrant. A desire to discharge with ease and safety, the numerous legal duties which the obligations of society call upon us daily to perform, creates an appetite for every species of literary labour, by which it appears likely to be gratified; but the productions which are occasionally served up to meet this temporary call, seldom consist of very substantial materials. The work, however, at present under our consideration, is of a very different description, and, from the very attentive perusal we have given it, we may venture to pronounce that it will not only be read with pleasure, but may be relied upon with confidence. It comprehends a great variety of points in which the public are very generally interested; for in the ordinary course of human affairs, almost all persons at some period of their lives, are called to exercise the office of *a personal representative*, or to transact business with such as are invested with it; and it is the only modern work of any reputation which professes exclusively, "to unfold its nature, to describe its rights, and to point out its duties." The book indeed, of the most distinguished merit on this subject, is that which is entitled the "*Office and Duty of Executors*," written originally in the year 1640, by *Mr. Justice Dodderidge*, and now known by the name of "*Wentworth's Executors*," of which a thirteenth and last edition was published, by the late *Mr. Serjeant Wilson*, so long ago as the year 1774; but this work, although it is calculated to engage the attention of the reader, and

and contains very sound principles and authentic information, is, as Mr. Toller truly observes,

'Often uncouth, and sometimes obscure in its language; altogether inartificial in its method; and of necessity defective in regard to later adjudication, which, especially in equity, are very numerous and important: it is also silent respecting the office of an administrator: nor is it much indebted to its several editors: for the supplement, as it is called, is a mere collection of cases, without order, and without precision.'

It was these circumstances which induced the author to complete the present treatise; and he then executed his task in a manner that will fairly intitle him to the approbation of the profession. The subject is arranged in a clear, distinct, and natural order; its multifarious matter is comprized within as narrow limits as perspicuity would admit; the authorities from which the several parts of the text are extracted, are stated very fully in the margin; and the whole law on this interesting and important topic brought within the compass of a single volume of less than four hundred pages. It is divided into three books, the first of which treats of the appointment of executors and administrators; the second of the rights and interests of executors and administrators; and the third of the power and duties of executors and administrators; and each book is divided into a certain number of chapters, in which, among other titles, we find the law upon the following subjects clearly explained. 1. Wills and codicils. 2. The different kinds of executors and administrators. 3. The general nature of their respective interests in the goods of the testator or intestate; as in chattels real, personal, and mixed, chosen in action, &c. of the chattel interests, which do not vest in this representative of the deceased, and of those which go to the heir and to the widow. 4. In what manner the goods which the executor takes in that character, may become his own, &c. 5. Of the funeral; making an inventory; collecting the effects; payment of debts in their legal order; payment of legacies, and of an executor's right to retain a debt due to him from the testator. 6. Of DISTRIBUTION of an intestate's effects, as, 1. Under the statute of distribution. 2. Under the custom of London. 3. Under the custom of York and of Wales. 7. Of ASSETS, as distinguished into real and personal, legal and equitable, and of Marshallery assets. 8. Of wasting the trust estate. 9. Of the remedies for and against personal representations both at law, and in equity. To which is added, AN APPENDIX, respecting the duty on probates and administrations and on legacies.

ART.

ART. VII. *An Attempt to illustrate some of the Prophecies of the Old and New Testament. By Thomas Zouch, M. A.* 12*mo. pp.* 235. 3*s.* 6*d. Boards. Payne, Hurst*, &c. 1800.

WE are glad to see the attention of intelligent men directed to the sacred prophecies in this eventful period. The labours of several respectable writers in this intricate, but important field, have lately passed under our review, and have met with our approbation. There is, however, ample room for further exertions, and we may well express our wish, in the solemn language of inspiration, "that the GOD of Heaven would send forth more labourers into the vineyard."

We cannot therefore but lament with Mr. Zouch, that the Lecture, founded in 1768, by Bishop Warburton, for the purpose of "proving the truth of revealed religion in general, and of the christian in particular, from the completion of prophecies which relate to the Christian church, especially to the apostacy of Papal Rome," has been discontinued for some years. The painful attention of learned men, when attached to one subject, must obviously contribute to elucidate that subject, by uniting all the aids of human erudition to remove uncertainty and doubt. St. Peter, in his Second Epistle, considers prophecy as a light shining in a dark place. But the day has already dawned, and that light has burst forth with seven-fold splendor. The diffusion of knowlege, predicted in these words, "many shall go to and fro, and knowlege shall be increased," hath, in a great measure dispelled that obscurity, in which the communication of the Divine will was originally involved.

Mr. Zouch, with strict justice considers the great Joseph Mede, as a guide or cynosure in directing our inquiries after prophetic truth; and he properly observes, that 'a due regard to his famous theory of synchronisms might probably have prevented many improper applications of prophecy.' The first assertion in this little volume is a very unfortunate one, and does no credit either to the author's judgment or his liberality. Mr. Zouch observes, that, "The protestant churches receive their strongest support, or rather derive their original foundation, from the prophecies concerning Anti-christ, as they have been explained by our best and ablest divines." This is not the fact. The protestant churches owe neither their origin nor their support to the application of the prophetic scriptures. True it is, the reformers both in England and in foreign countries, turned their attention to the prophecies, and

and did generally give to the Pope the appellation of Antichrist. This, however, was after the separation, and a consequence of it. Mr. Zouch adopts their opinion, and endeavours, with great zeal, to fasten upon the church of Rome all the characteristics of the man of sin. He applies also Daniel's prophecy of the little horn of the he-goat to the power, whose seat of government was in pagan and papal Rome. Mr. King applies the same prophetic vision to the Saracenic power, and that with considerable force of argument and ingenuity; but Mr. Zouch resists this interpretation at length, and will not allow, that in this prophecy there is the most distant allusion to Mahomet, or his religious system. Perhaps many will think that neither opinion is exactly clear; and some interpreters will probably adopt new modes of explaining this dark oracle.

Popery is so greatly the object of Mr. Zouch's enmity, that he will fain have it to be meant by St. Paul, in his prediction of the apostacy of the latter times, 1 Timothy iv. For our parts we do not think that the departure of the church of Rome from the truth, how great soever that may have been, can be justly considered as *apostacy*, which implies absolute infidelity. The "forbidding to marry," upon which so much stress has been laid, as being characteristic of the ecclesiastical and monastic celibacy, rather signifies a lawless violation of the institution of wedlock. This has taken place, in some degree, in France, and seems to be a natural consequence of licentiousness and irreligion.

Mr. Zouch applies to the papal power the vision of the beast, which arose out of the sea, with seven heads, and ten horns. Rev. xiii. 1—10; and the two horned beast, which came up out of the earth, mentioned in his subsequent part of the same chapter, he will have to be the institution of Monachism.

In the conclusion, he expresses it as his opinion, that the Jews will experience a conversion and restoration; and in this we agree with him, but we are inclined to question his liberality, when he charges upon our dignitaries and universities a want of attachment to the real interests of the church of England. His apprehensions respecting the encrease of popery, appear to us as ridiculous as the story which once created great alarm in the city of London, "that the Pope had been seen in a gin-shop in Wapping."

ART.

ART. VIII. *The System followed, during the Two last Years, by the Board of Agriculture, further illustrated; with Dissertations on the Growth and Produce of Sheep and Wool, as well Spanish as English. Also, Observations upon, and a New Plan for the Poor and Poor Laws. To which are added, Remarks on the Modes of Culture and Implements of Husbandry, used in Portugal. And, an Inquiry into the Causes of the Late Scarcity, and Means proposed to remedy it in future. By John Lord Somerville. Illustrated with Plates.* 18*s*. *Miller. Old Bond Street.*

ALL arts prosper under the tuition of science; and it is rather surprizing agriculture should have been so long abandoned, in almost every civilized nation, to accident and ignorance. But human passion and folly, which account for most eccentricities of the species, form the true solution of this problem. The whims and elegancies of fashion engross more of our attention and industry, than even the necessary means of existence: nor is modern policy so constantly awake to the internal improvement, as the exterior safety and aggrandisement of states. And we of this island, more especially, concenter so habitually all our abilities in exploring and cultivating the sources and means of commerce, that our other interests and concerns are for the most part considered only as subservient to trade.

The volume before us, however, seems calculated to detach somewhat of the national taste and spirit from this general and predominating bias, and to fasten it on the culture of the soil. On rural affairs, many are the publications recently made. A turn for investigation and experiment seems to distinguish our present farmers from all their predecessors. And it indicates somewhat auspicious to the success of practical husbandry, that the result of the various enquiries now made, is, that he is the best farmer who at least expence can rear the best crop, or who brings the greatest quantity of produce, of the primest quality, to market.

This production of his Lordship may be considered as an official report of a great national institution, to which all the proprietors and cultivators of land throughout the kingdom, with the whole body of consumers, naturally look up for direction, in whatever seems most necessary for the further improvement of such advantages as our island affords.

'It may be imagined, says his Lordship, that the idea of such an institution is of modern date, coeval perhaps with the institution itself; but

but this is not the case. The idea was suggested by an old writer, *Samuel Hartlib*. It was so much approved of as to obtain for its author a pension, not inconsiderable in those days, of 100*l*. *per annum*, from *Oliver Cromwell*. Since which, we find *Hartlib's* idea still farther enforced by a very spirited and classical writer, who suggested the very appellation, in a work published in 1764, by which it is now chartered, the *Board of Agriculture*.'

After having stated the origin of the Board, we are next presented with a summary of its transactions, from its commencement under the auspices of the legislature, and the sanction of a royal charter. The influence of these on the furtherance of agriculture as a science, is briefly ascertained, and their merit consequently appreciated. The points to which the chief reference is made are, the survey and report of the present progress of agriculture, which were the first movements of the Board. The effect of this, from an apprehension that it was the forerunner of some new impost, was to seal up the farmer's lips. And so far from operating as a source of knowlege, it actually put an end to every species of usual information.

All the addresses of the President to the Board, during a period of two years, are here inserted. They refer, in general, to the regulation of the Society, its expenditure, economy, resources, and utilities. But the subject obviously nearest his Lordship's heart, and which engrosses most of his discussion, is that of sheep and wool. Here the noble author is evidently at home; and affords much well-authenticated and useful information, both to the owner of flocks and those employed in our woollen manufactories.

The condition of the poor, which wants redress, and the excessive burden it imposes on the landed interest, are two considerations which induce his Lordship to propose what he thinks may be formed into something like an adequate remedy for the evil. As the out-line of this plan is at once simple and brief, we give it in the author's own words:

'It may be proposed to invest in proper hands, a fund in relief of the poor's rates, for supporting the aged and sick, and to be levied either parochially, by hundreds, counties, or by one general accumulation of the whole kingdom, under direction of commissioners of the highest respectability, as follows: From those earning 7*s*. and 10*s*. per week, whether labourers in husbandry, manufacturers, servants, or mechanics, 3*d* per week may be taken, covered by the like sum by the employer. The annual saving of this class will be 1*l*. 6*s*. every other class in proportion, whereby the different degrees of accumulation will equal the former habits of life of each person; the only criterion

criterion by which can be estimated the value of any man's labour. The effect of this measure if established by the legislature, will be visible in an increasing habit of economy amongst that class of people most interested in such a measure, the poor in the gradual reduction, and perhaps hereafter annihilation, of the poor's rates; which generally speaking bear partially on the landed interest; and as manufacturers increase, will continue to bear on it more heavily, to say nothing of the severity and sometimes cruelty, with which the poor applying for relief, are too often treated.'

This proposal, important as it is, our author brings forward with characteristic and commendable modesty. He is aware of the difficulty which accompanies every view of the subject; and he submits it implicitly to the examination of some respectable persons in high, ostensible situations, whom he deems the most competent judges. The objections which occur in this correspondence merit particular attention. The first paper, in particular, by one, who his Lordship says, 'has been much engaged in the administration of the poor laws, with great credit to himself, and advantage to the community, is replete with sound argument and much solid information.' Indeed, we own ourselves not a little both enlightened, and satisfied, by the whole of this very interesting and elaborate discussion. It is added, with great candour:

'Thus then the author has fairly laid the matter before the public. He has given the opinions on both sides, and also the plans of others, though in opposition to his own. He hopes for discussion; he expects opposition; he aims at improvement. These were his reasons for consulting individuals in the first instance. They are still his motives for offering his opinions in print. He now leaves it to its fate.'

On what he has to offer concerning implements of husbandry, machines, &c. his Lordship introduces himself with sensible observations on the elements of agricultural education. An old Roman writer he says, "complains that every art was taught methodically, whilst that of husbandry was neglected." And to this day, the same complaint, with equal truth may be made. Except the Georgics of Virgil, he alleges none of the ancient authors on this subject are even read in our schools. He regrets we have no good translation of Varro, Pliny, Columella, and many others, and refers to an old version of Zenophon's Treatise on Household, in terms of approbation; observing, at the same time, *that it is not easily met with just now.* His Lordship thinks, and we presume, with propriety, that husbandry should form a more leading part of our education at public schools. And we perfectly agree with him, that it is a national misfortune, there is

no

no professor of agriculture either at Oxford or Cambridge. And yet, as he very properly remarks, of those educated at each, one third possibly will have no other employment than to take care of their own estates, and from want of which early knowlege, they are driven to depend on those whose interest it too often is to mislead them.

From the system of farming, generally practised by the Portuguese, his Lordship borrows and recommends various improvements. Such particulars as did not apply to the husbandry in any part of Great Britain, he very properly passes over unnoticed, and records those only which are thought best adapted to our use. Among these, are the method of slaughtering cattle, by a separation of the spinal marrow; the peculiar construction of windmills in the vicinity of Lisbon; the use of a singular kind of *hoe*, in the exercise of which the natives are remarkably expert; and the draught oxen, so common in Portugal, and the mode of taking the entire advantage which can be derived from the well-known strength, and other qualities of that laborious animal. The last article, naturally leads his Lordship to discuss the question, whether is better, a plough of horses or a plough of oxen. He decides in favour of the former, on such principles and reasoning as, in our opinion, are conclusive. We recommend his Lordship's calculation on this subject, very earnestly, to all practical farmers. The result is, that one cart-horse moderately fed, or fed in the usual way, actually consumes the corn or bread of seven persons. So that 300,000 cart horses consume annually, as much, or more, than 2,100,000; which, admitting the population to be 10,000,000, is more than one fifth of the whole. He states the cart horses now employed, at 500,000, and alleges, 300,000 of these may well be spared, and even advantageously superseded by the use of oxen.

We sincerely wish this very important work may have a circulation equal to its merit. His Lordship's observations are all practical. For speculative farming he is no advocate. In his opinion it has done much evil. He occasionally cautions his countrymen against it, and he seriously avers, no instance can be given, of what he calls a book farmer ever being a gainer.

His Lordship begins the work with a fling at '*well-turned periods*;' but we confess his composition betrays no palpable deficiency of this kind. The texture of the whole is not without marks of taste and elegance, and the language every where simple and perspicuous.

ART. IX. *Asiatic Researches; or, Transactions of the Society instituted in Bengal, for enquiring into the History and Antiquities, the Arts, Sciences, and Literature of Asia. Volume the Fifth.* 8vo.

(Concluded from p. 45.)

THE thirteenth paper in this collection is "*An Account of the Elastic Gum Vine, of Prince of Wales's Island, and of Experiments made on the Milky Juice which it produces: with Hints respecting the useful Purposes to which it may be applied.* By James Howison, Esq."

This plant was discovered by accident in the forests of Prince of Wales's Island; and a very accurate account of it is given in this paper. The author recommends it as an excellent cloathing for manufacturers employed with the mineral acids, and for sailors, soldiers, fishermen, and every other description of persons who, from their pursuits are exposed to wet stockings. The mode of converting it into boots, &c. is particularly detailed.

Article XIV. is "*A Botanical Description of Urceola Elastica, or Caout-Chouc Vine of Sumatra and Pullo-Pinang; with an Account of the Properties of its inspissated Juice, composed with those of the American Caout-Chouc.* By William Roxburgh, M. D."

We have here a more scientific description of the same important plant, which Dr. Roxburgh reckons as a new genus in the class *Pentandria*, and other *Monogynia*, coming immediately after *Tabernæ montana*, and consequently belonging to the thirtieth natural order, or class called *Contorte* by LINNÆUS, in his natural method of classification or arrangement. One of the qualities of the plants of this order is their yielding, on being cut, a juice which is generally milky, and for the most part deemed of a poisonous nature.

Dr. Roxburgh observes that, it is a great impropriety to call *Caout-Chouc*, a gum, resin, or gum-resin, as it possesses qualities totally different from all such substances as are usually arranged under those generic names. Some term it simple *Caout Chouc*, which our author wishes may be considered as the generic name of all such concrete vegetable juices (mentioned in this memoir) as possess elasticity, inflammability; and are soluble in the essential oils, without the assistance of heat.

A very elaborate description of this plant follows, accompanied with an engraved representation of it in flower.

XV.

XV. *Some Account of the Astronomical Labours of Jayasinha, Rajah of Ambhere, or Jayanagar.* By William Hunter, Esq.

This curious paper exhibits the scientific acquirements of this ingenious prince to great advantage. The following brief notice of him is prefixed to a translation of his preface to an astronomical work entitled *Zeej Mahomnedshahy.*

'*Jey-sing*, or *Jayasinha*, succeeded to the inheritance of the ancient Rajahs of *Ambhere*, in the year *Vieramadittya* 1750, corresponding to 1693 of the christian æra. His mind had been early stored with the knowlege contained in the Hindu writings; but he appears to have peculiarly attached himself to the mathematical sciences, and his reputation for skill in them stood so high, that he was chosen by the emperor MAHOMMED SHAH to reform the calendar, which, from the inaccuracy of the existing tables, had ceased to correspond with the actual appearance of the heavens. JAYASINHA undertook the task, and constructed a new set of tables, by which almanacks are constructed at Dehly, and all astronomical computations made at the present time.'

A curious and minute account of his labours, as given by himself, then follows; but it will not allow of extracts. Next comes a description equally minute, of the observations constructed by this prince, and their scientific contents.

XVI. *Description of a Species of* MELOE, *an Insect of the* FIRST OR COLEOPTERON'S *Order in the* LINNÆAN *System: found in all Parts of Bengal, Behar, and Oude; and possessing all the Properties of the* SPANISH *blistering Fly, or* MELOE *Vesicatorius.* By Captain Hardwicke.

This insect is described with great accuracy; but a reference is made to a figured representation of it, though no such appears in the volume.

XVII. *A comparative Vocabulary of some of the Languages spoken in the Burma Empire.* By Francis Buchanan, M. D.

There are six languages in this large empire, of each of which we have here a distinct vocabulary, with the significations in English; but it is nearly impossible to give an analysis of this paper.

XVIII. *On the Chronology of the Hindus.* By Captain Francis Wilford.

This well written paper is illustrative of a genealogical table extracted from the VISHNU *purána*, the BHA'GAVAT and other *puránas*. The lofty pretensions of the Hindus to a most extraordinary antiquity, are here computed at a glance; and

by examining the strangely perverted tales of this people, and comparing them with the Hebrew scriptures, Mr. Wilford succeeds in drawing the conclusion that the chronology of the latter is the pure one. This is a valuable article, and will be of great use both in an historical and theological point of view.

XIX. *Remarks on the Names of the Cabirian Duties, and on some Words used in the Mysteries of Eleusis.* By the same.

This paper is an additional evidence of Mr. Wilford's learning and sagacity. The mythology of the orientals and that of the Greeks are shewn to have a wonderful coincidence; and the author observes that the *Greek* language has certainly borrowed largely from the Sanscrit.

XX. *Account of the Pagoda at Perwúttum.* By Captain Colin Mackenzie.

This pagoda is situated near the south bank of the Kistna, in a wild tract of country, almost uninhabited, except by the Chinsuars; but though this description of it is pretty copious, it is uninteresting.

XXI. *Remarks on the principal Æras and Dates of the Ancient Hindus.* By Mr. John Bentley.

We are glad to see so many of our ingenious and intelligent countrymen applying themselves to the subject of the Hindu chronology, which has been so pompously and absurdly brought forward by some writers to invalidate that of the bible. Mr. Bentley follows Mr. Wilford in his manner of investigating the monstrous system of this people, and comes to the same conclusion. These papers are of considerable importance.

XXII. *On the Religious Ceremonies of the Hindus, and of the Bráhmens especially.* By H. T. Colebrooke, Esq.

This is the first of a series of essays upon the religious ceremonies of the Hindus: the remainder of which we suppose are to appear in the succeeding volumes. The present article is curious and amusing. One of the most solemn services of the Brahmens is the worshipping of the rising sun after bathing.

'This ceremony is begun by his tying the lock of hair on the crown of his head, while he recites the *Gayatri*, holding much *cusa* grass in his left, and three blades of the same grass in his right hand; or wearing a ring of grass on the third finger of the same hand. Thrice sipping water with the same text preceded by the mysterious names of worlds, and each time rubbing his hands as if washing them; and finally, touching with his wet hand his feet, head, breast, eyes, ears, nose, and navel, or his breast, navel, and both shoulders, only (according

(according to another rule) he should again sip water three times, pronouncing to himself the expiatory text which recites the creation. If he happens to sneeze, or spit, he must not immediately sip water, but first touch his right ear in compliance with the maxim, "after sneezing, spitting, blowing his nose, sleeping, putting on apparel, or dropping tears, a man should not immediately sip water, but first touch his right ear." "Fire," says PARASARA, "water," the *védas*, "the sun, moon, and air, all reside in the right ears of *Brahmanas*. *Ganga* is in their right ears, sacrificial fire in their nostrils; at the moment when both are touched, impurity vanishes." This, by the by, will explain the practice of suspending the end of the sacerdotal string over the right ear, to purify that string from the defilement which follows an evacuation of urine. The sipping of water is a requisite introduction of all rites; without it, says the *Samba purana*, all acts of religion are vain. Having therefore sipped water as abovementioned, and passed his hand filled with water briskly round his neck, while he recites this prayer: "May the waters preserve me!" The priest closes his eyes, and meditates in silence, figuring to himself that BRA'HMA with four faces, "and a red complexion, resides in his navel: VISHNU with four arms and a black complexion, in his heart; and SIVA with five faces and a white complexion, in his forehead." The priest afterwards meditates the holiest of texts during three suppressions of breath. Closing the left nostril with the two longest fingers of his right hand, he draws his breath through the right nostril, and then closes that nostril likewise with his thumb, holds his breath while he meditates the text: he then raises both fingers off the left nostril, and emits the breath he had suppressed. While he holds his breath he must on this occasion repeat to himself the *Gayatri* with the mysterious names of the worlds, the triliteral monosyllable, and the sacred text of BRA'HME. A suppression of breath so explained by the ancient legislator; YA'JNYAWALCYA consequently implies the following meditation, 'One! earth! sky! heaven! middle region! place of births! mansion of the blessed! abode of truth!'

'We meditate on the adorable light of the resplendent generator which governs our intellects; which is water, lustre, favour, immortal faculty of thought BRA'HME, earth, sky, and heaven.' According to the commentary, of which a copious extract shall be subjoined, the text thus recited signifies, "That effulgent power which governs our intellects, is the primitive elements of water, the lustre of gems, and other glittering substances, the savour of trees and herbs, the thinking soul of living beings; it is the creator, preserver, and destroyer, of the sun and every other deity, and all which moves, or which is fixed in the three worlds; may he unite my soul to his own radiance (that is, to his own soul, which resides effulgent in the seventh world, or mansion of truth!") On another occasion, the concluding prayer, which is the *Gayatri* of BRA'HME, is omitted, and the names of the three lower worlds only are premised: thus recited, the *Gayatri* properly so called, bears the following import: "On that effulgent

power which is BRA'HME himself, and is called the light of the radiant sun, do I meditate; governed by the mysterious light which resides within me, for the purpose of thought: that very light is the earth, the subtil ether, and all which exists within the created sphere; it is the three-fold world, containing all which is fixed or moveable; it exists internally in my heart, externally in the orb of the sun; being one and the same with that effulgent power. I myself am an irradicated manifestation of the supreme BRA'HME."

We have given this extract as exhibiting the very quintessence of Behmenism. It is the whole practical theology of the famous theosophist, and would have been read with raptures by the celebrated Mr. William Lane.

The remainder of this paper is equally curious.

XXIII. *The Rudhirádhyáya or Sanguinary Chapter: translated from the Calica Puran.* By W. C. Blaquiere, Esq.

We cannot give a better account of this article than by extracting the prefatory letter from the translator to the secretary of the society.

'Sir,

The sacrifice of human and other victims, and the sacrificial rites celebrated by the *Hindus*, having been represented to me as a subject of curious investigation, which, from a comparison with the ceremonies used on similar occasions, by other ancient nations, might perhaps be interesting, as well to the Society, as to the learned in *Europe*, I preserved the *Calica Puran*, in which I was given to understand, I should meet with full information on the subject. To effect this purpose, I translated the *Rudhir'dhyáya* or sanguinary chapter, which treats of human as well as of other sacrifices, in which blood is shed. I hope also in my next communication, to lay before the society, a full account of the goddess CALI, to whom these sacrifices are made, and of the *Bhairavas* sons of SIVA, to two of whom the chapter is addressed by SIVA.

XXIV. *An Account of the Pearl Fishery in the Gulph of Manar, in March and April,* 1797. By Henry J. Le Beck, Esq.

The pearl fishery at Ceylon is generally lucrative; but in the above year it was more productive than it had ever been before. This is a very exact and entertaining account of the fishery, and far exceeds all former descriptions of it.

Passing over the author's general observations we shall extract what will, in our opinion, be particularly acceptable to our readers.

'During the fishing season, the desert, barren place, Condatchey [the fishing town in the bay,] offers to our view a scene equally novel and astonishing. A heterogeneous mixture of thousands of people of

of different colours, countries, casts, and occupations; the number of tents and huts, erected on the sea-shore, with their shops or bazars before each of them; and the many boats returning on shore in the afternoon, generally richly laden; altogether form a spectacle entirely new to an *European* eye. Each owner runs to his respective boat as soon as it reaches the shore, in hopes of finding it fraught with immense treasure, which is often much greater in imagination than in the shell; and though he is disappointed one day, he relies with greater certainty on the next, looking forward to the fortune promised him by the stars, as he thinks it impossible for the astrological predictions of his *Brahmen* to err. To prevent riot and disorder, an officer with a party of Malays is stationed here. They occupy a large square, where they have a field-piece, and a flag-staff for signals.

'Here and there you meet with brokers, jewellers, and merchants of all descriptions; also sutlers, offering provisions and other articles to gratify the sensual appetite and luxury. But by far the greater number are occupied with the pearls. Some are busily employed in assorting them; for which purpose they make use of small brass plates, perforated with holes of different sizes; others are weighing and offering them to the purchaser; while others are drilling or boring them, which they perform for a trifle. The instrument, these people carry about with them for this purpose, is of a very simple construction, but requires much skill and exercise to use it; it is made in the following manner: the principal part consists of a piece of soft wood, of an obtuse, inverted, conical shape, about six inches high, and four in diameter in its plain surface; this is supported by three wooden feet, each of which is more than a foot in length. Upon the upper flat part of this machine are holes, or pits, for the larger pearls, and the smaller ones are beat in with a wooden hammer. On the right side of this stool, half a cocoa-nut shell is fastened, which is filled with water. The drilling instruments are iron spindles, of various sizes, adapted to the different dimensions of the pearls, which are turned round in a wooden head by a bow. The pearls being placed on the flat surface of the inverted cone, as already mentioned, the operator sitting on a mat, presses on the wooden head of his instrument with the left hand, while, with his right, he moves the bow which turns round the moveable part of the drill: at the same time, he moistens the pearl, occasionally dipping the little finger of the same hand into the water of the cocoa-nut shell, with a dexterity that can only be attained by constant practice.

'The donies appointed for the fishery are not all procured at *Ceylon*; many come from the coasts of *Coromandel* and *Malabar*, each of which has its distinguishing number. About ten o'clock at night a gun is fired as a signal, when they sail from *Condatchey* with an easterly or land wind, under the direction of a pilot. If the wind continue fair, they reach the bank before day, and begin diving at sun rise, which they continue till the west or sea breeze sets in, with which they return. The moment they appear in sight, the colours

are hoisted at the flag-staff, and in the afternoon they come to an anchor, so that the owners of the boats are thereby enabled to get their cargoes out before night, which may amount to 30,000 oysters, if the divers have been active and successful.

'Each boat carries twenty-one men, and five heavy diving stones for the use of ten divers, who are called in *Tamul*, *kooly karar*, the rest of the crew consist of a tandel, or head boatman, and ten rowers, who assist in lifting up the divers and their shells.

'The diving stone is a piece of coarse granite, a foot long, six inches thick, and of a pyramidical shape, rounded at the top and bottom. A large hair rope is put through a hole in the top. Some of the divers use another kind of stone shaped like a half moon, to bind round their belly, so that their feet may be free. At present these are articles of trade at *Condatchey*. The most common, or pyramidical stone, generally weighs about thirty pounds. If a boat has more than five of them, the crew are either corporally punished or fined.

'The diving, both at *Ceylon* and at *Tutucorin*, is not attended with so many difficulties as authors imagine. The divers, consisting of different casts and religions, (though chiefly of *Parrawer* and *Musselmans*,) neither make their bodies smooth with oil, nor do they stop their ears, mouths, or noses with any thing, to prevent the entrance of salt water. They are ignorant of the utility of diving bells, bladders, and double flexible pipes. According to the injunctions of the shark conjurer they use no food while at work, nor till they return on shore, and have bathed themselves in fresh water. These *Indians*, accustomed to dive from their earliest infancy, fearlessly descend to the bottom in a depth of, from five to ten fathoms in search of treasures. By two cords a diving stone and a net are connected with the boat. The diver putting the toes of his right foot on the hair rope of the diving stone, and those of his left on the net, seizes the two cords with one hand, and shutting his nostrils with the other, plunges into the water. On reaching the bottom, he hangs the net round his neck, and collects into it the pearl shells as fast as possible, during the time he finds himself able to remain under water, which usually is about two minutes. He then resumes his former posture, and making a signal, by pulling the cords, he is immediately lifted into the boat. On emerging from the sea, he discharges a quantity of water from his mouth and nose, and those who have not been long enured to diving frequently discharge some blood; but this does not prevent them from diving again in their return. When the first five divers come up and are respiring, the other five are going down with the same stones. Each brings up about one hundred oysters in his net, and if not interrupted by any accident, may make fifty trips in a forenoon. They and the boat's crew get generally from the owner, instead of money, a fourth of the quantity which they bring on shore; but some are paid in cash, according to agreement.'

The concluding article in this volume consists of "*Astronomical Observations made in the Upper Province of Hindustan.*" By William Hunter.

ART. X. *Lectures on History, delivered in the Normal School of Paris, by C. F. Volney. Translated from the French.* 12mo. *pp.* 186. 3*s.* 6*d. Boards. Ridgway,* 1800.

THE Normal School was one of those ephemeral institutions which the French revolution has produced in such abundance, and which with all their gaudy splendour, have vanished almost as soon as begotten. Mr. Volney, the veritable traveller, and the new modeller of antiquity, was *judiciously* selected to be the lecturer on history in this same boasted school. And yet this Mr. Volney is the enemy of history, which he considers as "one of the most fertile sources of the prejudices and errors of mankind." It is passing strange for a man to lecture in a science, the utility of which he condemns. We should well be inclined to wonder at the temerity of that man, who with a sovereign contempt for analytics, should yet undertake the office of professor of mathematics.

Our *ingenuous* professor, or lecturer, in his preface, boldly advances the following positions:

'From history the greater part of religious opinions are derived; and granting to the pride of each sect the exception of its own tenets from error, still, among contradictory beliefs, one only can be right. It is evident, however, that whenever a belief is proved to be false, all the variety of actions and opinions of which it is the basis, are deprived of their support, and fall to the ground with the original error. From history are likewise derived almost all the political maxims and principles which guide, overthrow, or consolidate governments.

'The sphere of civil acts and opinions which this second influencing power embraces in a nation, is sufficiently obvious, and need not be pointed out here. Finally, the reports which we every day hear, and which form a real branch of history, become the cause, more or less mediate, of a number of false ideas and erroneous actions. Indeed, were the errors of mankind submitted to calculation, *I should venture to predict*, that nine hundred and ninety-nine out of a thousand of them would be found to belong to history; and *I think* I should then establish this maxim, *that the prejudices and false ideas which each individual man possesses, come to him from others*, in consequence of the credulous confidence he places in reports; while all the truths and correct ideas he has acquired, belong properly to himself, and are the fruits of his own personal experience.'

A set of more absurd propositions was never exhibited to public view, and is only equalled by the conceited and arrogant language in which they are expressed. The first assertion plainly lets us into the reason of Mr. Volney's furious hatred to history. He has endeavoured already to prove that the sacred

cred records are a series of mythological fables, and to accomplish his object effectually, he now attempts to overthrow the credit of history *in toto*. When our author concedes to the pride of *each sect*, the exception of its own tenets from error, how can he with a consistent regard to truth, advance that *one only* can be *right?* If he allows that they are all free from error, they are by a necessary consequence all of them in the right; and there can be no such thing as contradictory beliefs, though there may even in that case be different ideas of the same thing. This proves that Mr. Volney is no logician, for by too much liberality, or the affectation of it, he involves himself in the grossest absurdity. We might contend at length the second proposition, which states history as the origin of political maxims and principles; but it is needless. The opinions of thinking men on government and politics, will necessarily be the same in different ages, allowing for circumstances only. Man is the same being at one period as in another; and where there is a civilized society, the principles by which it is cemented and actuated will not be the effects of irritation, or proceed from the study of history, but from nature. It must be allowed, that history is in many cases erroneous, but the discovery of the erroneous parts is easy enough. The great and essential truths cannot be disguised, or rendered perplexing, where we have an opportunity of comparing different relations of the same facts. It is, however, easy to perceive why Mr. Volney wishes to *shake* the credit of history; namely, that he may give to atheism its triumph, and to anarchy its favourite confusion.

The contents of this volume are as follow:

'Lecture I. *Program.* OBJECT, plan and distribution of history.

'Lecture II. The literal meaning of the word history is an examination or inquest of facts. Modesty of the ancient, and temerity of the modern historians. The historian who writes on testimony, performs the part of a judge, and remains an intermediate witness with respect to his readers. Extreme difficulty of proving the real state of a fact. Difficulty, on the part of the spectator, of accurately observing it. Difficulty, on the part of the narrator, of accurately describing it. Numerous causes of error, originating in deception, prejudice, negligence, omission, partiality, &c.

'Lecture III. Continuation of the same subjects. Four principal classes of historians, with the different degrees of authority that belong to each. 1. Historians who have acted a part in the events they record. 2. Historians who only have witnessed those events. 3. Historians who have received their information from witnesses. 4. Historians on hearsay, or tradition. The inevitable corruption of accounts transmitted by report. Absurdity of the traditions of distant times, common

common to all nations. They have their origin in the nature of the unhuman derstanding. The character of history always proportionate to the degree of ignorance or civilization of a people. Character of history among the ancients, and among nations unacquainted with the art of printing. Effects of the press upon history. The change it has produced in modern historians. The temper of mind best suited to the study of history. The absurdity of doubting every thing less dangerous than that of doubting nothing. Reasons for being cautious in our belief.

'Lecture IV. The preceding subject resumed. What is the utility that may be derived from history? That utility divided into three kinds: 1. The utility of good examples, more than counterbalanced by the bad. 2. Transmitting facts relative to the arts and sciences. 3. Political consequences of the operation of laws, and of the nature of governments, on the fate of nations. The study of history under this last point of view, belongs properly to but a small number of persons: it is only suited to youths, and to the greater part of the various classes of society under the first. Well written novels are preferable.

'Lecture V. Of the art of studying history with advantage. That art not attainable by youth. The study of history without proper instruction, more injurious than useful to young minds. Of the art of teaching the study of history. Views of the author on a course of historical studies. Of the art of writing history. Examination of the principles of Lucian and Mably.

'Lecture VI. Continuation of the same subject. Four methods of composing history. 1. According to the order of time, (as in annals and chronicles.) 2. By adopting a dramatic or systematic arrangement. 3. By treating the different subjects separately. 4. By an analytic or philosophic arrangement. Illustration of those different methods. Superiority of the last. Its connection with politics and legislation. It admits none but ascertained facts, and is only suitable to modern times. Facts recorded of ancient times, can never possess a higher evidence than that of probability. Necessity, on this account, of recomposing ancient historians, and plan of a literary society for collecting ancient documents in every part of Europe. Prejudices would be destroyed by disclosing their origin. Influence of history. On the conduct of governments, and the fate of nations. Effects of the Jewish writings on Europe. Effects of the introduction of the Greek and Roman writers into education. Conclusion.'

On looking at this analysis, and glancing at the size of the volume, our readers will quickly perceive that the subjects proposed, and the positions advanced, must be slightly discussed, and supported rather in a dogmatical than in an argumentative manner. Mr. Volney with considerable assurance, cuts down and builds up, by virtue of his own authority, without offering the slightest apology, or condescending to give the shadow of a reason for his conduct. In recommend-

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ing the study of novels to youth, as being more instructive than genuine history, our author acts like himself. It becomes the man who has endeavoured to throw into fable the venerable records of antiquity, records which have been strengthened by every possible degree of evidence, which have undergone the severest examinations, and which are regarded as sacred by every reasonable mind; we say, it becomes such a man, to substitute the fictions of imagination for the instruction of youth, instead of the relation of real facts, and the delineations of genuine personages. But though we cannot, by any means, recommend these lectures entirely, yet we meet with a remark here and there which is ingenious and curious. The following is of this description, and with it we shall conclude our notice of this article.

'There is this characteristic difference between Rousseau and Voltaire, considered as *chieftains of opinions*, that if you attack Voltaire before his partizans, they defend him by reasoning or pleasantry, but without passion, and at most only regard you as a person of bad taste. But if you attack Rousseau before his disciples, you excite in them a religious horror, and they regard you as a monster. In my youth I experienced these impressions myself; and having sought to discover the cause, it appeared to me, that Voltaire, addressing himself to the imagination rather than to the heart, to the judgment rather than to the feelings, does not heat the mind with any passion; and as he employed himself more in combating the opinions of others than in establishing his own, he produced the habit of doubting rather than that of affirming, a disposition of mind which always leads to tolerance. Rousseau, on the contrary, speaks to the heart more than to the head, to the affections rather than to the understanding. He exalts the love of virtue and of truth (without defining either) by the love of women, which is so capable of causing illusion. Having a strong conviction of his own rectitude, he suspected first the opinions, and then the intentions of others: this state of mind is the immediate cause of aversion in the feeble, and persecuting intolerance in the powerful. It is indeed worthy of remark, that the great number of men who have in our times, figured in the latter character, were, or pretend to be, the disciples and admirers of J. J. Rousseau.'

The translator has executed his part in a respectable manner; but the paper is execrable, the letter disproportionably large, and the price extravagant.

ART.

ART. XI. *Morsels of Criticism. In Three Volumes. By Edward King, Esq.*

(Continued from p. 64.)

THE eighth section, which begins the second volume in this edition, has for its title "Considerations, relating to the Account given by our Lord, of the Day of Judgment."

Mr. King labours at great length, and with some ingenuity, to prove that, although the salvation of the immediate servants of our Lord, or of those who are called the joint heirs with Jesus Christ, and the elect, depends solely upon those blessed terms of *a right and effectual faith on the great Redeemer and Lord of all, Jesus Christ*; *perfected by true repentance, and sincere and effectually renewed obedience*; yet that there will be numbers of *others*, not of this description, who on account of their benevolent dispositions will be admitted into the regions of bliss. The former of these characters he thinks are those who will come with Jesus Christ in judgment; and the latter whom he will address as having rendered offices of kindness and love to his disciples. The hypothesis is plausible, but is attended with numerous objections.

Section IX. "Concerning the periods and the arrangement of the series of events; prophesied of in the book of the Revelation."

It must be admitted that our learned author has thrown some considerable light upon the mysterious visions of this obscure book. He says properly, that

'Nothing can seem more clear, than that the *first of these, the seals*, were designed to mark *several distinct periods of time, and changes of circumstances*, that should succeed each other in the world, whilst the same system of government continued, as prevailed at the time when the prophecy was delivered.

'And that the *second of these, the trumpets*, were intended to mark the changes that should take place after the great civilized part of the world had departed from that state and form of things, and had assumed the badge of christianity.

'And that *the third, the vials*, describe changes that should ensue, *more particularly in the West*, even during the prevalence of some of those other events described as coming to pass in the East, and therefore *such* as would be even contemporary with them; and were, on that account, to be described by themselves in a sort of Appendix. Each then of the emblems must describe a state of things *quite peculiar to the respective period intended to be marked out*, and which would suit no other so completely.'

We

We cannot dwell at length upon Mr. King's explanations of the periods of the *seals and trumpets*, in which he frequently adopts the schemes of Mr. Mede and Bishop Newton. The time of pouring out the *first vial*, he considers as about the year 600 or 700, from which period Europe was a dreadful scene of murder and bloodshed. The *second vial* he thinks signifies the general infatuation of all ranks of people, excited by the preaching of Peter the Hermit, whereby Europe was drained of a multitude of inhabitants, and a deluge of blood was poured out.

The *third vial* he considers as characteristic of the events which happened from 1273 to 1493. The *fourth* he limits to the space between the years 1519 and 1713.

The *fifth vial* relates to the lessening the power of papal Rome, by the extinction of the Jesuits and other religious orders.

In explaining the *sixth vial*, Mr. King displays great ingenuity. The *croaking frogs* which proceed out of the mouths of the dragon, great beast, and false prophet, are, in his opinion,

'The false teachers of such errors as disturb the quiet, and deject the minds of men; teachers of Atheistical doctrines, (or of such mere Deistical doctrines as they are called, as have finally just the same tendency and lead to the same sort of conclusions;) teachers and setters-up of such opinions as have unavoidably had a tendency to weaken the authority of the word and law of God; and to break down and destroy the restraint and sanction of Divine Revelation, and of all good laws; and by that means to prepare mankind, in the end to be let loose, without controul, upon one another, to injure each other, in defiance of all the commands of God, and, as it were, to fight against God himself."

This description so exactly suits the present age that few, perhaps, will be disposed, to oppose Mr. King's application of it.

He observes that these principles have spread latterly very much even among the Mahammedans, and hence he infers the speedy downfal of the Ottoman empire, a conclusion which is greatly warranted by the existing state of political circumstances.

Section X. "Concerning the Saracen and Turkish powers; as understood to have been emblematically prophesied of by the prophet Daniel."

Mr. King thinks, in opposition to Bishop Newton, that the little *horn* of the *he-goat*, in the eighth chapter of Daniel, does

does not mean the Roman power, but the Mahommedan; and it must be allowed that his hypothesis is well supported, and very ingeniously illustrated. This power he asserts to be on the decline; and he is of opinion that it will fall by the means of Russia. As matters stand, his opinion is highly corroborated, and there is every probability of its being fully confirmed by the event.

Section XI. "Further remarks on the prophecy of Daniel."

The same position is here maintained from a particular consideration of chap. xi. verses 40—45.

Section XII. "Concerning the consequences of the punishment of Ananias and Sapphira."

Mr. King's critical abilities appear to advantage in illustrating the obscure passage which follows the story of Ananias and Sapphira. He reads the whole thus:

'And there was great fear upon the whole assembly, and upon all those who heard of these things. And by the hands of the Apostle were wrought many signs and wonders amongst the people. And THEY [*the Apostles*] were all of them with unanimity (or united in this close band of society,) in the portico of Solomon. But of the rest [*of the Believers,*] no one *dared to associate himself in that intimate band of fellowship and community of goods* with them. Yet (nevertheless) the people extolled them. And the believers were the more added to the Lord; a multitude of men and women.' Acts chap. v. verses 11—14.

Section XIII. "Concerning the word damnation, in the 4th verse of the epistle of Jude."

Our author proposes to read the passage thus:

'And shall we not [rather] (as we be slanderously reported of, and as some affirm that we say,) still do evil that good may come? Of which sort of persons the [severe] opinion formed is a just one, or upon whom the censure passed is just.'

We allow to Mr. King, that το κριμα does not here signify *damnation* or *future punishment*, and that a softer word would have expressed its meaning better, both here and elsewhere; but we do not approve of his translation, which seems to sanction, contrary to the express meaning of the apostle, the lawfulness of "doing evil that good may come."

Section XIV. "Concerning the manner in which the word ΨΥΧΗ is made use of by the LXX."

After noticing the division of man into body, soul, and spirit, as agreeable to the scriptures in general; Mr. King proves that the word ψυχη is often used by the LXX to denote mere *animal life* alone, or that which is seated in the blood,

blood, on which subject he has some ingenious physiological remarks.

APPENDIX. Section I. "Concerning St. Peter's account of the destruction of the earth by fire."

The tenour of this curious disquisition, is to prove that the earth by approximating to the sun, will be converted into a comet; a notion which has been maintained before by Mr. Whiston, and other eminent writers.

Section II. "Concerning the expressions relating to the pit; and the lower, or nether parts of the earth."

It is the opinion of our learned author, that there really is a cavity at the centre of our earth, which is what the scriptures call the "bottomless pit." He adduces many philosophical reasons for this notion, and undoubtedly what he has advanced is of considerable weight, and in a religious point of view, it is not unimportant.

The most valuable part of this paper, however, is a long note respecting the case of Jonah. Mr. King has displayed great knowlege in this disquisition, and has invincibly "shewn the fact to be *philosophically possible*, even according to the *experience* we are permitted to be acquainted with." The friends of revelation will be richly gratified by this valuable morsel of biblical criticism.

(To be concluded in our next.)

ART. XII. *The most cogent Reasons, why astringent Injections, Caustic Bougies, and violent Salivations, should be banished for ever from Practice: with the mildest Methods of safely treating every species of venereal Infection, strictures of the Urethra,* &c. *and correcting Mischiefs arising from the Use of Caustic Bougies. By William Rowley, M. D.* 8vo. *pp.* 175. 4*s. sewed. Murray and Highley,* 1800.

TO impute sinister motives to an author of considerable experience and reputation, when he steps forward with an address to the public, conceived in terms equally novel and extravagant, can be neither a pleasant nor enviable part of our office. Dr. Rowley assures us, in the Introduction, that he inculcates in the present work milder methods of treatment, with numerous prescriptions, in some respects different from any suggested, and *severely* arraigns the hazardous practices of using astringent injections, or omitting the administration of

of mild mercurials, in the fresh-contracted venereal poison, when situated in the urethra; that such styptic applications and irrational omissions have been irrefutably proved to be productive of the confirmed *lues*, and of some of the most afflicting complaints man can suffer; namely, dreadful obstructions in the evacuation of urine, *sooner* or *later* in life; and that he has produced extracts from the writings of the most learned practitioners that ever appeared in the world, to the number of *forty*, many of whom have reprobated, in the strongest terms, the enterprising and injurious treatment, &c. But, while the learned doctor informs us of the *motives* which induced him to publish this treatise, and the *aim* he had in view by its composition, he does not lose the opportunity of giving us a short sketch of his biography; from which we learn not only the titles and merits of his different publications, but also the number of years he has been engaged in the study and practice of medicine, both at home and abroad.

We cannot but reprobate the author's frequent and indiscriminate censure of his brethren, and the ostentatious display of the many thousands of cures he has performed in *all* sorts of diseases: we beg leave to remind the doctor of the old adage, which is often effectually impressed on the young scholar of a sanguine turn, *propria laus sordet*, rather than to make invidious comparisons between a regular practitioner, and those miscreants who have recourse to public advertisements; the former requires no such commendation, for he has more honourable, though slower, means of endearing himself to society.

With respect to the question, whether 'astringent injections, caustic bougies, and violent (profuse) salivations should be banished for ever from practice,' we cannot implicitly subscribe in the affirmative, unless the Doctor can substitute more efficacious means than any proposed in his desultory pamphlet; for he himself admits that one of them at least may be sometimes necessary, and that it may occasionally be resorted to. In our opinion, neither of these violent remedies is so frequently employed by regular practitioners as the author maintains; but we fully agree with him, that they ought to be used only in cases of considerable difficulty, or such as cannot be removed by milder means; and that none but judicious and experienced practitioners should resort to them.

Lastly, Dr. Rowley shews an uncommon partiality for *medicated bougies*, which, however, can have no greater efficacy here than Mr. Perkins's metallic tractors; for no absorption can take place during the short space of time the

bougie remains in the passage. Hence we shall conclude, by observing, that the evils sometimes following the application of *caustic bougies* may be obviated "by using them with a lenient hand, in obstinate cases only, and especially *by not allowing the caustic to project beyond the extremity of the instrument.*"

ART. XIII. *A Walk through some Parts of the Western Counties of England. By the Rev. Richard Warner of Bath.* 8vo. *pp.* 222. 6*s. Boards. Robinsons.* 1800.

MR. WARNER is already well known as an ingenious pedestrian, by his walk through Wales, which has been noticed by us with approbation. The present volume will be read with equal pleasure, though it must be allowed, that the style is rather too flowery, and the work itself too often exhibits the characteristics of romance. This journey was made in the autumn of 1799, and the relation of it is conveyed in the form of letters. Mr. Warner, in his introductory epistle, dated from Glastonbury, says,

'Should fortune be propitious, and, after the long series of inclement weather which we have experienced, indulge us with a few weeks of cloudless skies, I may at least promise you some variety, and, perchance, some novelty also; since it is my intention to carry you through the "labouring orchards" of Somersetshire; to sink you full many a fathom deep into the mines of Cornwall; to lead you along the crags of the Danmonian shore;

"Where the great vision of the guarded mount
"Looks towards Namancos and Bayona's hold;"

to ferry you over the Belerian sea, bewilder you amongst the Cassiterides, and at length conduct you safely home through the rich vales of Devonshire.'

The unfavourableness of the weather prevented our adventurous traveller from fulfilling the whole of his engagement.

His first route was from Bath to Wells, the cathedral of which last place engrosses a good deal of his attention. The abbey of Glastonbury, however, is still a more favourite object. Mr. Warner gives the story of the execution of Richard Whiting, the last Abbot of Glastonbury, in detail, and with much indignation against Henry VIII. whom he compares to Ahab. The cliffs of Cheddar, are next described, with much felicity of expression; and from thence our pedestrian pursues his course to the sea-coast of Somersetshire.

At

At the village of Paulet an incident occurred, which we shall relate in Mr. Warner's own words:

'Whilst S——— and myself were chatting over our tea, we heard a horse and cart at the door of our caravansery; and immediately afterwards the sounds of a female voice, neither very gentle nor very melodious, calling to the ostler, roused our attention. On going to the door, we discovered a "thing of shreds and tatters," intended for a *cart*, and drawn by a small poney, not much larger than a stout Newfoundland dog. In the centre of this machine at a female figure, brawny, but short, who seemed to have weathered nearly sixty winters. She was recounting to a man who stood by, the labours of her little mare, which had dragged her loaded cart twelve miles to market in the morning, and brought it safely the same distance through the moor in the evening, when she herself could not discern the road. As there appeared to be no reserve on the part of the lady, S—— asked her some questions relative to her history, situation, and manner of life, to which she readily gave answers to the following effect:

'That she was a native of Huntspill, in the northern part of Somersetshire, where she had always resided, but being the fruit of an illicit commerce, had come into the world under rather unfortunate circumstances. Born in the poor-house there, she continued for some time the property of no particular person, but a sort of fixture, or heir-loom, that descended from one master to another, without enquiry or regard. The education of a village work-house, you know, is not very liberal or extensive; you will not be surprised, therefore, that Johanna Martin (for that is her name) left it for service at the age of twelve, with a mind as uncultivated, as her body was scantily clothed—the former, a perfect blank; the latter, with a wardrobe consisting of one ragged gown. The term of her servitude being expired, Johanna married a labourer, and settled in life. Unluckily (as she expressed herself) *she took terribly to breeding*, and in the course of seven years presented her husband with as many children. Two of them, however, died in their infancy; but while she was big with an eighth, it pleased Providence to take her husband from her. Shortly after his death, she became once more a mother, and found herself a widow, with six infants, and not a shilling in the world to feed them with. In this dilemma, Johanna applied for relief, to the officers of the parish, but "they relieved no out-paupers, though they had no objection to receive the children into the poor-house." Johanna had herself experienced the *comforts* of this mansion, and was not prejudiced enough in its favour to trust her offspring there, she therefore declined the offer, and determined to depend upon nothing but Providence, and her own activity, for the support of her numerous family. But no common exertion was sufficient for this. "For many a long month, Gentlemen," said she, "have I risen daily at two o'clock in the morning, done what was needful for the children, gone eight and ten miles on foot to a market,

with a large basket of pottery-ware on my head; sold it, and returned again with the profits before noon." By this more than horse-like labour, Johanna, in the course of a twelvemonth, amassed the sum of one guinea and a half; when, being under the necessity of quitting her cottage, she resolved to build an house for herself. But though a *famous architect*, and a very good *workman*, the undertaking was too great for her individual labour; she therefore hired a man of the place to assist in the building, and to work they went.

'You will hardly suppose that Johanna's riches were so great as to form an object of plunder; but nothing is beneath the notice of petty villainy; the one pound eleven shillings and sixpence were yet untouched, being reserved to defray the expences of the building. Her treacherous coadjutor had marked the spot in which the treasure, carefully wrapped up in a rag, had been deposited; and one fatal morning, when the unsuspecting Johanna was gone to a distant market, the villain seized the little deposit, and decamped; taking with him, at the same time, a few planks which had been provided for the intended building.

'Can you conceive a disappointment more severe than that which the poor widow must have experienced on returning to her plundered dwelling? Or picture to yourself a situation more likely to have produced the gloom and listlessness of despair? But our heroine's mind was above the reach of fortune, and superior to the attacks of casualty. "To be sure," said she, "I did curse the rascal that robbed me, a little; but knowing that fretting would not bring the money back again, I wou'dn't waste tears about the matter. Besides, I had not leisure to grieve; the children wanted bread, and I was the only person to provide for them. I determined, therefore, to work harder than ever, for some time, and to let the cottage alone, till I had gotten a little beforehand, and then to finish it *myself*, that I might not be robbed a second time. To be sure, the children and I were obliged to sleep for several weeks in the shell of the tenement, with no other covering (for it was not roofed) than a dew-board *; but 'twas summer time, and for the matter of that, we were warm enough, for we all *six slept in one bed.*

"Well, gentlemen," continued she, "with the assistance of a good GOD, I was able, at last, to finish my cottage, which (though I say it myself) is a very tight little place, and, after some time, having saved another trifle, I bought the old cart I am now in, and the little poney you see, with which (though I only gave half a guinea for her) I would not part with for the best fifty shillings that ever were told. I wanted them bad enough; for what with *smartish work*, and not very good living, I began to find my legs give out; and that I could not walk thirty miles a day now, so well as I

* A few temporary planks thrown across the cottage, from wall to wall, to defend them from the *dews of night.*

walked

walked them twenty years ago. With these, however, I am able to carry pottery to the different market-towns round about, and drive a pretty briskish trade. To be sure, I ben't very rich; but what I have is all of my own getting. I never begged a halfpenny of any soul; I brought up my children without the help of the overseers; I can now live without being obliged to them; I maintain myself, and don't care a farthing for the *Pope or Keeser* (Cæsar)." Saying this, Dame Johanna Martin smacked her whip, and drove off, leaving us in admiration of a character equally rare and exemplary—a mind unconquerable by disaster—a spirit which preferred contending with difficulties almost unparralleled, rather than to submit to the shackles of dependence.'

Continuing his progress along the Somersetshire coast, and marking the striking objects of art and nature, which fell in his way, with the eye of the painter and the antiquary, our author brings us to the Hamlet of Culbone, on the confines of Devon.

'The approach to Culbone church is by a small foot-path, narrow, rugged, and so declivitous, that it was with the utmost difficulty I kept my footing, though aided by a stout staff, with a pike at its extremity. A gloomy mantle of wood covers this steep, and nearly excludes the fair light of day, so that, like Æneas and his friend Achates, in their descent to Tartarus, Crispin [the guide] and I pursued for some time a *darkling journey*, of considerable toil, and some little hazard. After a descent of about six hundred feet, the path terminated, and introduced to our view Culbone church and church-yard, situated in as extraordinary a spot, as man, in his whimsicality, ever fixed on for a place of worship.

'A small cove, of an oval form, opened upon us, the bottom of which is formed by a little verdant carpet of two or three acres. Around this hollow, the hills on every side, save on that which is next to the sea, tower up in a direction nearly perpendicular, to the sublime height of twelve or thirteen hundred feet; fretted with jutting rocks, and laden with venerable woods. *Here* the oak's solemn shade is relieved by the bright berry of the mountain asp; and *there* the light satin of the airy birch is chastised by the gloom of the melancholy yew; whilst the feathering fir, and luxuriant beach, lend their contrasting foliage to give a wider variety to the enchanting scene. At the mouth of the cove, the land suddenly falls to the shore, in an abrupt descent of four or five hundred feet; rough with enormous crags of rock, but enlivened with verdure and foliage quite to the beach.

'In the centre of the little recess, thus surrounded and defended from the intrusion of the stranger, stands the Liliputian church of Culbone, a Gothic structure, thirty-three feet in length, and twelve in breadth, with a cemetery of proportionate dimensions stretching round it, appropriately ornamented with broken modest grave-stones,

and

and the remains of an ancient stone cross. Two cottages, planted just without the consecrated ground, are its only companions in this secluded dell.

'Quiet and sequestered as this romantic spot at present is, it has heretofore borne an honourable name in the annals of rustic revelry; its rocks have echoed to the shouts of multitudinous mirth, and its woods rung with the symphonious music of all the neighbouring village-bands;—in plain English, a revel or fair was wont to be held here in times of yore. I fortunately met with a garulous old blacksmith, who had himself made a great figure on these festive occasions. He had been the *Eutullus* of the place, and dwelt with great exultation on his many triumphs, which the church-yard of Culbone had witnessed.

"About forty-five years agone, Sir," said he, "I was at a noble revel on this spot; three hundred people, at least, were collected together; and rare fun, to be sure, was going forward. A little warmed with dancing, and somewhat flustered with ale, (for certainly Dame Matthews did sell stinging good stuff) I determined to have a touch at skittles, and sport away a sixpence or shilling, which I could do without much danger, as I had a golden half guinea in my pocket. To play, therefore, I went; but the liquor getting into my head, I could not throw the bowl strait, and quickly lost the game, and two shillings and nine-pence to boot. Not liking to get rid of so much money in so foolish a manner, and not thinking the fault was in myself (for too much ale, you know, Sir, is apt to make one over wise) I resolved to win back the two and nine-pence, and then leave off; and accordingly set to play a second time. The same ill-luck followed me, and in an hour and a half I had not only lost the remainder of my money, but about sixteen shillings more out of a guinea, which I borrowed of a friend. This terrible stroke quite sobered me; my wife was but just brought to-bed, and I could not help thinking what a wicked scoundrel I must be, to go and run into ruin, and to deprive her and the child of food merely to indulge myself in a game, which, instead of being an amusement, had put me into a terrible passion, and made me curse and swear more than I ever did in my life.

"Desperately vexed at my folly, I went into the wood hard by, and sat down by the side of the water-fall, to reflect on my situation. I could plainly hear the singing and laughing of the revel, but it was now gall and wormwood to me; and I had almost resolved to escape from that, my own reproaches, and the distress of my wife, by throwing myself down the cliff upon the shore. Providence, however, was so good as to preserve me from this additional wickedness, and to put a thought into my head, which saved me from the consequences of despair. Cool and sober, for I had washed myself in the stream, and drank pretty largely of it, it struck me, that if I went back to the skittle-ground, and ventured the remaining five shillings, I should have a good chance of winning back my money from those who had beaten me before; as *I* was now *fresh*, and *they* all over-

come

come with ale. Accordingly I returned to the church-yard, and took up the bowl, though pretty much jeered by the lads that had hitherto been winners. The case, however, was altered; I had now the advantage, could throw the bowl strait, took every time a good aim, and more than once knocked down *all nine*. To make short of my story, Sir, it was only night that put an end to my good-luck; and when I left off play, I found I had got back my own half-guinea, the guinea I had borrowed, and fifteen shillings in good silver, after paying my part of the charge for the day. You may suppose I was not a little happy at this change of fortune; in truth, Sir, I felt very grateful, and as soon as I had left my companions, fell down on my knees to thank God for saving me from ruin; and did not rise till I had made a solemn vow, that I would never venture another sixpence in gambling again; a vow which I have for these five and forty years most religiously observed, and which I have found so much *pleasure* in keeping, that there is no chance I shall ever wish to break it."

'I listened to the old gentleman's story, fraught with the wisdom of experience, with due attention; thinking, at the same time, that if the more *exalted gamblers* would imitate the wisdom and the virtue of this honest blacksmith, *high life*, as it is called, would exhibit much fewer scenes of wretchedness and vice than it at present displays.'

We expected to have met with a much better description of the Valley of Stones than that which Mr. Warner has given us. His pencil is very feeble and inaccurate on that sublime and romantic piece of scenery. He is also very incorrect in his notices of the towns in the north of Devon. By a strange figure of rhetoric, he calls the Bristol channel a 'dangerous mediterranean;' which expression is nearly allied to a *bull*. Barnstaple is represented as a large place, having above four thousand inhabitants, though it does not contain half the number. Bideford is said to be a large, wretched, and dirty place, with all the filth, inconvenience, and disagreeableness of a sea-port, and little of its bustle and animation. This is a caricature, and a very false one; for the town is remarkable for its cleanliness, convenience, and pleasantness. The bridge was not built by Sir Thomas Grenville, but by voluntary contributions.

Our traveller penetrated no farther into Cornwall, than Launceston. from whence he proceeded to Lidford, which romantic spot is well described. After crossing the dreary wilds of Dartmoor, he entered Chudleigh, in the neighbourhood of which is some beautiful scenery. From Chudleigh we accompany him with pleasure to the charming town of Totness; but by rapid marches he hurries us on to Chard, in Somersetshire, and nothing relieves us in our course from

thence to Bath, but a minute description of Wokey Hole, and Dr. Harington's elegant ballad, called, "The Witch of Wokey."

Mr. Warner is a good writer, and a pleasing companion; but he gives too much scope to his imagination, and he makes too great a speed in his excursions, to be very accurate in his descriptions.

Two neat views in aquatinta ornament the volume. One of Berry Pomeroy Castle, in Devonshire, and the other of Culbone Church in Somerset. At the head of each letter is a sketch of the route, cut in wood, but shamefully incorrect.

ART. XIV. *The Anatomist's Vade-Mecum: containing the Anatomy and Physiology of the Human Body. The Second Edition, revised and enlarged. By Robert Hooper, of Pembroke College, Oxford, M. D. F. L. S. &c. 12mo. pp. 219. London. Murray and Highly.* 1800. 3*s.* 6*d. sewed.*

IN a former volume * of our Review, we had an opportunity of announcing the author's "Compendious Medical Dictionary," as an useful compilation. Dr. Hooper has again employed himself for the benefit and assistance of the student, in that most essential branch of medical science, anatomy. He pertinently says in the Introduction,

'It is the intention of the writer, in the following Compendium, to present to the student an useful anatomical conspectus, or pocket manual of anatomy and physiology: giving a short, but accurate description of the different parts of the human body, and their functions; with a glossary, or explanation of the principal terms used in that science.

'The utility of such a performance will be generally acknowleged, when it is considered that there is no such work written upon a similar plan.'

As the author formerly felt the want of such an assistant, when studying anatomy, he modestly solicits permission to recommend it to the tyro, not as a work in which any thing new is to be found, but merely as an occasional companion in the prosecution of his studies.—If, however, Dr. Hooper would allow us to express a wish for the improvement and more extensive utility of this little work, we are inclined to think that its value might be greatly enhanced, by adding the most frequent monstrosities occurring in the structure of the human body, or those singular deviations from the perfect form and organization of man, which are comprehended under the term of "morbid anatomy," and with which the medical student cannot be made acquainted too early.

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* See Vol. I. p. 84.

MONTHLY

MONTHLY CATALOGUE,

For AUGUST, 1800.

DIVINITY.

ART. 15. *A Sermon preached at Sittingbourn, on Wednesday, June* 11, 1800, *at the Visitation of the Lord Archbishop of Canterbury, and published by his Grace's Command. By the Rev. Jeremiah Jackson, M. A. Vicar of Ospringe.* 4to. *pp.* 16. 1*s. Johnson.*

TEXT, John, chap. 5. ver. 43, 44. "I am come in my father's name, and ye receive me not: if another shall come in his own name, him ye will receive. How can ye believe, which receive honour of another; and seek not the honour that cometh from God only?"

In this animated discourse, the source and effects of infidelity are traced with a masterly hand, and exhibited in glowing terms. The character of the sceptical philosopher is admirably drawn, and well contrasted with the genuine lover of truth.

ART. 16. *A Sermon occasioned by the late desperate Attempt on the Life of his Majesty, preached at Christ's Church, in Bath, on Sunday, June* 8, 1800. *By the Rev. C. Daubeny, L. L. B.* 8vo. *pp.* 27. 1*s. Hatchard.*

MR. DAUBENY is already well known to the public by some able performances in behalf of the church of England. The present discourse will not detract from his reputation. It is a very sensible and a very loyal composition, from 1 Peter ii. 17. "Fear God, honour the King."

ART. 17. *On the Right of individual Judgment in Religion. A Sermon preached at Chowbent, Lancashire, on the* 25*th June,* 1800, *at the Annual Meeting of the Ministers of the Presbyterian Persuasion. By George Walker, F. R. S. and professor of Theology in the New College, Manchester. Published at the Request of the Congregation.* 8vo. *pp.* 41. 1*s.* 6*d. Johnson.*

THE right of private judgment in religious matters, will hardly be questioned by any man in the present day. No subject is better understood, or more generally agreed upon, than religious toleration. It appears, therefore, very unnecessary to preach or print upon such a topic, especially in a country like this, where toleration stands upon a wider basis than in any part of the globe.

Mr. Walker is a good writer and an able reasoner. He pleads the dissenting cause with great spirit, and in elegant language; but he laments that presbyterianism has declined of late years, and he charges the deserters from it with apostacy. This is not liberal. Those persons undoubtedly have a right to judge for themselves; and if they do not see those grounds for dissent which others do, they are not to be blamed for entering the pale of the church. The text is Acts iv. 19. "Whether it be right in the sight of God to hearken unto you, more than unto God, judge ye."

POLITICS.

ART. 18. *Substance of the Speeches of his Royal Highness the Duke of Clarence, in the House of Lords, April 5, May 16, and 23, 1800, against the Divorce Bill.* 1s. 6d. *Ridgeway, York Street.*

BY this series of speeches, we are put in complete possession of His Royal Highness's opinion on the celebrated question then agitated in the upper house of parliament. But though the reasoning in these speeches be corroborated by the fate of the Bill, though it is also enforced by the whole weight of the fashionable world, who are eager to applaud whatever coincides with the rage of the moment, and though the sentiments here stated have an imposing air of liberality, and are probably the suggestions of the highest circles in society, we have the mortification to think them both erroneous in principle, and of a lascivious tendency. And we regret extremely to find a prince of the blood, and gifted as he seems with superior talents, especially in these times, among the abettors of any thing inimical to purity of morals. It ought never to be forgotten that the profligacy of the great, in a neighbouring kingdom, did more to facilitate the dreadful crash which lately happened to their whole system of policy, than all its other causes united; and that the revolutionary mania, which has spread such havock and devastation in almost every part of Europe, derived more strength and a fiercer impulse, from the vices of luxury, voluptuousness, and social excesses of every kind, than from all the jacobins and demagogues who then took the lead, with the whole combination of other agents and agencies most forward in the atrocious movements, which terminated in that memorable event.

ART. 19. *Substance of the Bishop of Rochester's Speech in the House of Peers, Friday May 23, 1800; in the Debate upon the third Reading of the Bill for the Punishment and more effectual Prevention of the Crime of Adultery.* 1s. *Robson, New Bond Street.*

THERE is considerable wit and much acuteness in this speech. We think his lordship peculiarly happy in arguing the purity of the divine law, and resolving the question by the paramount sentence of the christian lawgiver. The speech, however, is not so much distinguished for masterly elocution as plausible reasoning. But whatever opinion we may entertain of the speaker's orthodoxy, as the bill was lost, we have not the sanction of the legislature for acquiescing in his logic. He did the duty of a christian bishop notwithstanding, and it will do him honour when the lustre of his fame shall be no longer affected by the pruriency of the times.

MEDICINE.

ART. 20. *Of the Imagination as a Cause, and as a Cure of Disorders of the Body; exemplified by fictitious Tractors, and epidemical Convulsions. By John Haygarth, M. D. F. R. S. L. and E. &c. &c.* 8vo. *pp.* 43. *Price* 1s. *Cruttwell, Bath; Cadell and Davies, London.* 1800.

WE are rather somewhat awkwardly situated with respect to the mysterious operation of Mr. Perkins's Patent Metallic Tractors; but as

as nobody ever believed that all reviewers are sages, or that all priests are immaculate angels, we cannot be charged with inconsistency, when we beg leave to differ in opinion from a fellow-labourer in this vineyard, who in October and November last, reviewed the pamphlets entitled, "*Experiments with the Metallic Tractors*, &c." Independent of the credulous manner in which Mr. Perkins's pretended discovery has been formerly held up to the public, we think it an imprescriptible duty to express our *real* sentiments on the occasion, and thus, if possible, to retrieve the injured character of this journal. No candid and discerning reader will be dissatisfied with our declaration, especially as it does not arise from any other motive but that of justice and impartiality.

The substance of this essay, we learn from the title-page, has been previously read to the Literary and Philosophical Society of Bath. Dr. Haygarth is a veteran in the field of medical experience, and, as such, his observations possess an additional value. He was induced to institute the experiments here recorded, in order to ascertain the degree of credit due to Perkins's discovery, which had excited much attention at Bath, especially among its numerous invalids. And as the *false* tractors had given rise to many exaggerated stories, which were industriously circulated in every company, with increasing amazement and credulity, he thought proper to lay the result of his investigation before the public. It deserves to be remarked, that a pair of wooden tractors was sent to Sir. W. Watson, in London, and Dr. Moncriefe, of Bristol; requesting them to make similar experiments. In consequence of this application, Dr. Haygarth received a letter from Mr. R. Smith, an ingenious surgeon at Bristol, who with a zeal and accuracy highly commendable, communicated *ten* cases, in which these fictitious tractors were used with a success truly astonishing: the substance of these experiments is also faithfully recorded in this pamphlet, which every lover of truth will read with satisfaction. Mr. Smith has corroborated his account by appealing to several respectable witnesses; and Dr. Haygarth's statement is authenticated by the unquestionable testimonies of Dr. Falconer of Bath, Mr. Nichols, and Mr. Philpot, surgeons, and Mr. Farnell, the apothecary; to the Bath General Hospital, where these experiments were instituted.

As, for want of room, we cannot communicate to our readers any particulars of these highly interesting inquiries; and as we trust that the author's essay will be generally read, we shall extract only the principal conclusions which Dr. H. has submitted to the further consideration and discussion of the society above-mentioned: 1. That the effects ascribed to the *fictitious* tractors are greater, and more wonderful, than what are related to have been produced by the *patent tractors* of PERKINS; 2. That the metallic tractors derive no additional influence from Galvanism, or animal electricity; and 3. That the detection of this delusion is not less complete than what is reported by the commissioners of Paris, in regard to MESSMER's animal magnetism.

ART. 21. *A general View of the Nature and Objects of Chemistry, and of its Application to Arts and Manufactures. By William Henry, Member of the Royal Medical, and Natural History, Societies of Edinburgh; of the Chemical Society of Jena, in Saxony; and of the Literary and Philosophical Society of Manchester.* 8vo. *pp.* 44. *Price* 1*s. London. Johnson.*

ALTHOUGH we do not agree with the author, that this small sketch affords a more ample detail, than has perhaps been hitherto published, of the general uses and applications of chemistry, yet we confess, that it contains a clear and concise view of this interesting subject. After having explained the particular object of chemistry, as a separate science, and recommended the study of it from the most cogent and persuasive arguments, the author points out, in detail, *a few* of its most striking applications: 1. To agriculture; 2. To medicine; 3. To various purposes in the economical arts, such as metallurgy, the processes of obtaining sugar, salt, glass, pottery, porcelain, the preparation of fermented liquors, wine, ardent spirits, the arts of bleaching, dyeing, printing, &c. &c. In short, if we may judge from the specimen before us, and the luminous manner in which it is executed, we may reasonably infer, that Mr. Henry is an agreeable and intelligent lecturer, who keeps the proper medium between popular explanation and scientific demonstration. Should his courses of chemistry be attended, as they probably will, by a mixed audience of both sexes, we advise him to amend or rather *popularize* his definition of chemistry, page 9, as we apprehend there are few ladies, even in the polished town of Manchester, who will understand what Mr. H. means by "*integrant* and constituent parts of bodies."

ART. 22. *Memorials on the Medical Department of Naval Service, transmitted to the Lords Commissioners of the Admiralty; to which is annexed, an Address to Parliament on the Expedience of amending the Laws relative to the Exportation of Corn. By William Renwick, Surgeon in the Royal Navy.* 8vo. 1*s. pp.* 32. *Longman and Rees,* 1800.

MR. RENWICK, as an advocate for the navy surgeons, has distinguished himself more by his zeal and perseverance, than by his eloquence or the force of his arguments. It is not necessary to enforce truth, or urge the cause of the deserving by fine words, while familiar ones are more persuasive; but we wish every one who would commit his thoughts to print, to endeavour to do so without obscurity or ambiguity. This tract can hardly be considered a fair subject of criticism, but we are sorry to see the best intentions unaided by the best reasoning. The first paragraph in the writer's letter to Sir Charles Middleton, is certainly not calculated to bespeak the most favourable attention. "Sir, The subsequent memorials are *promulgated*, because I am not in the *notoriety* of more than one having been received where their *impression* may obtain a more deliberate perusal: on this occasion, I again beg leave to testify the respect which no *transition* has tended to diminish." It seems by the close of the author's address to the Baronet, that the reviewers (before our time) have noticed, with commendations, some of his productions. These we have not seen, but

but from the present specimen, we cannot but hope that Mr. Renwick is more expert with the bistoury or probe, than with the pen.

To the memorials is subjoined, an address to the Parliament of Great Britain, upon the subject of the present scarcity, and the means of alleviating its apprehended effects. He speaks of the numerous acres of ground which "have been sacrificed to the rage of the day, for canals." How far agricultural advantages ought to give way to the interests of trade and manufactures, is a widely extended question: but it requires a stronger mind than that of Mr. Renwick to discuss the point as it ought to be done.

POETRY.

ART. 23. *Poems, by William Rowland Wake. Small 8vo. 5s. Booker, 1800.*

PLEASING are the varied effusions of a juvenile author, and laudable the motives which induced him to launch his little bark upon the sea of criticism for the port of public favour. No adverse gale from us shall interrupt his course. 'A chief reason for publishing these poems,' says the writer, 'is only known, and consequently only interesting, to the circle of his own friends.' But we gather from a modest advertisement, that 'if any emolument should result from this publication, it will be devoted to an institution for the education of poor catholics.' His reason therefore, for publishing, becomes interesting to every purchaser of his work: and though his muse should not enrich poetry, she will not impoverish morality. The following extract may serve to verify the propriety of this remark:

'AN EXTEMPORE SONNET,
On hearing a Blind Man play the Fiddle.

'Heard'st thou the note?—It was not void of art;
It touch'd each trembling fibre of the frame;
It harmoniz'd the pity-melting heart;
And to the ear it whisper'd sorrow's claim!
'Tis the poor blind man's fiddle, that along
The busy street, demands a trifling alms;
List! to the music, how his plaintive tongue
Sighs heavily in sad responsive psalms!
Ah! in the shatter'd orb, where beam'd the eye,
Sits scowling Sorrow on her ghastly throne;
And tho' Affliction's pearly fount is dry,
Affliction's galling pangs are not unknown!
Poor vagrant!—unreliev'd thou shalt not go;
Thy music warbles sympathy for woe!'

ART. 24. *The Nurse, a Poem. Translated from the Italian of Luigi Tansillo. By William Roscoe. The second Edition. 12mo. 5s. Cadell, 1800.*

WHEN a production like the present, conspicuous for its humane morality and classical elegance, advances to a *second* edition, it becomes the pleasing duty of a periodical journal to record the circum-

stance, which is no less honourable to literature than to its discriminating patrons. We commend the popular typographical form that Mr. R. has adopted in this impression; and we cannot let the volume pass from our hands, without expressing our admiration of the elegant and pathetic inscription which adorns its close.

ART. 25. *Pleasures of Solitude, a Poem. By P. Courtier. Small* 8vo. 2*s.* 6*d. Hurst.* 1800.

MR. COURTIER has judiciously adopted the dignified stanza of Spenser, in celebrating the philosophical delights of solitude, and has caught much of the mellifluous simplicity and tenderness of sentiment which characterizes his model. He will be conscious that we mean to praise him highly, when we say, that his imitation is only inferior to Beattie and Shenstone. From much that deserves selection, and would richly recompense us for the trouble of transcribing, we are induced to present our readers with the following stanzas, as they contain a just sarcasm on the pleaders for political justice and universal philanthropy.

'Forbear, ye freezing advocates of man,
Who prate of energies ye never felt;
Who laud, with all your might, the *social plan!*
Yet never in one social moment melt;
Grave souls, who never yet with feeling dwelt.
Ye mark, as parish-officers, the land,
In characters as dim and subtly spelt,
Where this should yield, or that unshaken stand,
And when to raise the sigh, and when to countermand.

'Better to banquet on the wildest notes
That ever warbled from Aonian mount,
To quaff seducing stream, that richly floats
In murmuring mazes from Castalian fount;
Than shackle down the eager mind to count
Each dull division of the cynic code.
If thou art wise, when journeying, ne'er dismount
To reconnoitre the infern abode
Of sheer philosophist; keep thou the beaten road.'

ART. 26. *Sequel to the English Reader; or, Elegant Selections in prose and verse. Designed to improve the highest Class of Learners in Reading; to establish a Taste for just and accurate Composition, and to promote the Interests of Piety and Virtue. By Lindley Murray; Author of English Grammar, adapted to the different Classes of Learners. Darton and Harvey.* 1800.

WE congratulate our youth, and the country in general, on the laudable perseverance of our author in extending his elegant selections. The present publication is evidently directed to the same important object, which he has uniformly pursued in all his former works; the

the further improvement of the mind and the heart, in every genteel accomplishment, and every desirable virtue. To keep the taste and imagination uncontaminated, he presents the purest moralities in the sweetest and most attractive language; and, by an early and assiduous attention to the polish of thought and expression, he insensibly strengthens the out-works of virtue. Inspiring the mind with the love of elegance, by placing habitually before her the finest sentiments, agreeable views of nature, captivating figures of life and manners, and whatever is most delightful and impressive within the range of cultivated fancy, leads gradually from amusement to instruction; from what pleases, to what informs; and from habits of intellectual indulgence, to pursuits of moral worth. This is the true secret of a polite and virtuous education, which no man seems to understand better than our author, or adopts means more likely to accomplish it. Both his *English Reader* and *Sequel* to that performance, do equal credit to his taste and principles; and we cannot perform a more necessary duty to the public, or do a greater service to our readers, than by recommending those fruits of his diligence to general perusal.

THE DRAMA.

ART. 27. *The Stepmother, a Tragedy; by the Earl of Carlisle. K. G, &c. &c. &c.* 8vo. 2s. *Evans.* 1800.

THE noble author declares, that in the construction of the fable, and in the conduct of the scenes of this tragedy, recourse has not been had to recorded history, or to the invention of cotemporary writers. We give him full credit for this declaration, but we give him credit for little more. If he has avoided the ridiculous minutiæ, the excessive sensibility, and the immoral tendency of the German drama, he has fallen into faults which would have disgraced the poorest poetaster that ever wrote for the English stage. His plot is dull, his incidents are destitute of interest, and unskilfully managed; his characters are not half filled up, his sentiments are trite, and his language is either prosaic and feeble, or turgid and elaborate.

Casimir, the tyrant of the piece, having married a second wife, by whom he obtains possession of very considerable domains, falls in love with Louisa, an amiable young lady, betrothed to his own son Frederick, the fruit of his first marriage. The Countess, learning that Casimir has made a will, by which she is deprived of all the wealth and territories she has brought him, determines to destroy him; and, knowing his passion for Louisa, which he has resolved to gratify at every risk, she forges a letter from her to the Count, appointing an interview. In the mean time, she persuades Frederick that Louisa is attached to another, and prevails on him to be present at the meeting which she had contrived to bring about between his father and his mistress, who is induced to attend with the expectation of meeting the Countess. Casimir, thinking Louisa had agreed to requite his passion, and enraged at her resistance, has recourse to force: Frederick arrives at the juncture, and mistaking his father for his rival, they wound each other mortally,

mortally, and expire on the stage. The Countess rushes out in a furious fit of despair in consequence of the discovery of her guilt, and Louisa winds up the catastrophe in an incoherent speech, dictated by love and madness.

Such are the materials from which the earl of Carlisle has formed a drama, inferior, in every respect, to most of the bad tragedies that have been represented for nearly a century past. He found it necessary to supply the absence of accustomed noise, machinery, and splendid decorations; and in his choice of difficulties, he has chosen the greatest; for it is impossible to perceive to what particular end he introduces those aërial beings described in the songs of the ancient northern bards, *the fatal sisters of the north*. They are evidently called upon in a very idle manner. No work worthy of their magic powers is assigned to them, and we do not perceive a single *thread* of the "dignus vindice nodus."

The diction is extremely faulty. Every page furnishes instances of the obsolete, the quaint, the affected, the puerile, and the false sublime. Frequent violations of metrical construction occur, and the cadence and emphasis are often at variance. In short, we feel no hesitation in observing, that the noble author has over-rated his powers. He appears not to have taken an accurate survey of the magnitude of the undertaking in which he engaged. He may manufacture an elegy, a poetical address, a prologue, an epilogue, and, in a happy moment, he may even strike off an epigram, but his most partial admirers will not maintain that he has written a *Tragedy*.

MISCELLANEOUS.

ART. 28. *The Pronunciation of the English Language vindicated from imputed Anomaly and Caprice: in two parts; with an Appendix, on the Dialects of Human Speech in all Countries; and an Analytical Discussion and Vindication of the Dialect of Scotland. By the Rev. James Adams, S. R. E. S.* 8vo. 8s. 6d. *Booker*, 1799.

NO literary subject, observes this well informed author, has been so much handled within the course of the present expiring century, nor so frequently been distinguished by the exertions of learning, wit, and ingenuity, as grammatical systems of the English language. Some masterly productions have fully displayed what is most essential to speech, and practical rectitude. But a comprehensive theory, and explanation applicable to any research respecting leading principles, rules, and variations of pronunciation, have not yet satisfied the enquiry of speculative observation. To accomplish this very arduous task, and to overturn the received opinion, that our pronunciation is anomalous and capricious, Mr. Adams has engaged, in the present elaborate investigation of the English language, and seeks to guide his way by all the expansion of light the powers of euphony and original principles can afford. On a former volume, which has not fallen within the scope of our observation, entitled, Euphonologia Linguæ Anglicanæ, the present publication appears to have been founded; but the author professes

professes to have reduced his efforts to a more regular plan, while he has divested them of extraneous matter.

The *two parts* of this work which the title announces, consist of an analytical process respecting elementary combinations and variations, chiefly confined to monosyllables; and an investigation of prosody, in all the multiplied forms of words, syllables, Greek and Latin analogy, &c. in each of these divisions, the learned professor hath displayed a comprehensive grammatical research, and profound philological knowlege. An appendix, in the dialect of all languages, is distinguished by recondite historical enquiry, and acute original observation, not unmingled with a vein of genuine humour, which agreeably diversifies the subject.

To the corruptions of London dialect might be added, a frequent omisson of *h* before a vowel; as, *and* for hand, *arm* for harm, *old* for hold, &c. and as frequent an adoption of the aspirate where it is not: as, *halter* for altar, *heager* for eager, &c.

Juft compliments are paid, in the author's preface, to Dr. Gregory, and to another eminent friend of Latin and British literature, (Dr. Robert Anderson) known by his biographic illustrations of our poets, who, like Aristarchus of old, liberally invites docile and timid adventurers in the hazardous pursuits of public applause, to his friendly threshold.

Sould the present attempt please the literati, the author proposes to publish a second part of the English grammar, the accidence, syntax, &c. &c. on the same original and instructive plan. By those who peruse this volume with attention, its successor will ardently be desired.

ART. 29. *The Rise and Dissolution of the Infidel Societies in the Metropolis; including the Origin of Modern Deism and Atheism; the Genius and Conduct of those Associations; their Lecture-rooms, Field-meetings, and Deputations; from the Publication of Pain's Age of Reason till the present Period. With general Considerations on the influence of Infidelity upon Society; answering the various objections of Deists and Atheists; and a Postscript upon the present State of Democratical Politics: Remarks upon Professor Robinson's late Work, &c. &c. By William Hamilton Reid.* Hatchard.

WE have read this performance with no common degree of satisfaction, and derived from it, as we presume, considerable edification. It gives such a melancholy picture of the religious world in the present æra, as must stamp it with indelible disgrace to all posterity. The origin and progress of irreligion under the monstrous system of scepticism and atheism, are here fairly and dispationately investigated. In the course of his enquiries, considerable light is thrown by our author on the extreme irritation which the public mind has lately betrayed from the influence of jacobinism, quixotism of politics, and dereliction of the moral principle. The attacks made on religion, somewhat like those on the intestines of the human body, are every where ominous to the welfare, and even threaten the being of society. The state of Europe at this moment furnishes but too many facts for authenticating every charge brought against our propagandists.

dists. These the author states, and applies with exemplary pertinence and effect, wherever his reasoning requires either proof or illustration. He is a strenuous friend to our religious establishment, and many of his arguments and observations are peculiarly appropriate to the defence both of church and state. That sectarian spirit of dissatisfaction and intrigue, which has of late years given them so much uneasiness and offence, he loses no opportunity of stigmatizing, in terms of merited severity. Of methodism and its progress, more especially in the metropolis, he avows the strongest apprehension. It is in his opinion one principal cause of the infidelity he would expose; and the palpable tendency to cabal which it implicates, is certainly as inimical to social order, as the extravaganza it promotes, to the practice of sound piety. We are sorry the book is not better printed, as want of taste in the choice of paper and the execution of the letter-press, may be the means of concealing its merit from many of those who are most competent judges of it. But this may be easily remedied in another edition, which, we trust, will soon appear.

ART. 30. *Address to the Public concerning Political Opinions, and Plans lately adopted to promote Religion in Scotland, &c. &c. By Robert Haldane, Esq.* 8vo. *pp.* 179. 1*s.* 6*d. Ogle.*

Mr. HALDANE is a gentleman of fortune in Scotland, and stands at the head of a society, the leading object of which, is to propagate the gospel in the dark parts of that country. The zeal which has been manifested by the persons concerned in this project, has roused the bigotry of many divines in the established church; and, among other calumnies which have been spread on the occasion, the society, and Mr. Haldane in particular, have been charged with holding jacobinical principles. Professor Robinson, in his "Proofs of a Conspiracy," was imprudent enough to make a broad allusion to Mr. Haldane, whom he called an eminent follower of Dr. Priestley, and charged him with expressions of a strong revolutionary temper. For this he was called to account, and, being unable to substantiate his accusation, he made an apology in the papers, and expunged the falsehood from the subsequent editions of his book. Mr. Haldane, however, finding his principles still misrepresented, has taken this method of justifying himself; and there can be no doubt in any candid and honest mind, but that he has done it completely. He allows, that at the beginning of the French revolution, he rejoiced at it; and we believe this was the case with many worthy and loyal men in Great Britain. At that time Mr. Haldane had no particular affection for religion, or any acquaintance with religious principles. Since then, his mind has acquired a new turn, and he has abandoned politics altogether. He avows, however, the principles of obedience, upon christian motives, and vindicates himself and his associates from every charge brought against them. We have been well pleased with this excellent pamphlet, the language of which is very good, and the temper in which it is written is admirable.

ART. 31. *Strictures upon the Political Parties in the City of Edinburgh, together with a Statement of authenticated Circumstances, and Facts, which merit the particular and immediate Attention, both of the honourable Magistrates, and all the inhabitants of that city. By a Friend to the Public.* 8vo. *pp.* 59. 1*s.* *Ogle*

THIS pamphlet can be interesting only to the inhabitants of Edinburgh. To us, on this side the Tweed, it conveys no other information than this, that political feuds run high in the capital of Scotland; and that some eminent men in authority there, have changed their political creed in complaisance to his majesty's ministers; and that the funds for the ecclesiastical establishment are not so well appropriated there as they ought to be.

ART. 32. *Observations on a late Publication, entitled, A Treatise on the Police of the Metropolis, by P. Colquhoun, Esq. By a Citizen of London, but no Merchant.* 8vo. *pp.* 97. 2*s.* 6*d.* *Symonds.* 1800.

THIS old citizen is a shrewd defender of the chartered rights of London against the projects of Mr. *Colquhoun*. He confutes many of that respectable writer's positions with some effect, though not in very elegant language. We agree with him, that "abstracted speculations are dangerous, as they tend to produce innovations which are not merely useless, but which may prove pernicious to the public body, and be particularly grievous to individuals." Nor is he, perhaps, very wrong in his idea, that "the public exhibition and classification of crimes is an imprudent step, as tending to create false alarms in the minds of the timid, and to render men more suspicious of one another than is accordant with Christian charity or common benevolence, and casts a disgraceful stigma upon many useful occupations in which there *are* a number of honest and worthy persons."

ART. 33. *Smith's actual Survey of the Roads from London to Brightelmstone, through Ryegate, Crawley, and Cuckfield; with a branch to Worthing. Also, from London to Worthing through Darking, Horsham, and Steyning; with a branch from Steyning to Brightelmstone. Exhibiting all the Noblemen and Gentlemen's Seats, and every remarkable Object on, or within View, of the Road. To which is added, a List of the Inns, distinguishing those that keep Post-horses and Carriages from others. Planned from a Scale of one Inch to a Mile.* 5*s.* *Smith.*

HAVING proved this travelling manual, we can the more properly vouch for its utility, and have only to regret, all our public roads are not surveyed in the same way. Nor do we know any thing more likely to facilitate private intercourse, and improve the interior of the country, than a similar delineation of the cross roads. It would also exhibit a more graphical and correct picture of the kingdom than any extant; and, from the important services it would certainly afford, could hardly fail of liberal encouragement.

ART.

ART. 34. *Observations on the failure of Turnip Crops, with Proposals for a Remedy, not altogether new, yet not fully considered by Agricultural Writers. By the Rev. H. P. Stacy, L. L. B. T. L. S. Hatchard.*

THE remedy here proposed is thus briefly stated. Supposing the failure of the turnip crop, owing to heat and draught rather than to the ravages of insects, as is but too generally conceived, it is recommended to place the seed at such a depth, that its radicles may have powers to supply the young plant with moisture sufficient to forward its growth, notwithstanding the attack of insects and inclement heat. Seeds sown at a depth of four inches, have a strong radicle, will stand every injury, and produce a crop. Should their depth be thought too great, from three to two inches may be adopted. But as the seed when sown at four inches will certainly rise, the mean between four and two may be adopted, with perhaps the greatest probability of success, viz. three inches, by which there will be little chance of any of the seed getting below four or above two. This hint we hope will prove highly acceptable in the present arid season, when farmers every where deprecate the consequences of a scarcity in this valuable root. Its utility indeed, for the preservation of our flocks, is universally known and felt, insomuch that the rates of butchers meat especially in the winter months, may be even now pretty accurately appreciated from the state of this crop. The author, therefore, is well entitled to the thanks of the country for this seasonable statement. He has also, much to the credit of his sensibility and discernment, exculpated the poor flea from a heavy imputation under which it has groaned from time immemorial, of devouring our turnip. His pamphlet claims of course, the double merit of providing more abundantly, and certainly for the most useful of our domestic animals, and rescuing the innocence of an harmless insect. We have only to wish all clerical Loungers were engaged in pursuits equally laudable.

TO CORRESPONDENTS.

We have been favoured with a very ingenious letter from Mr. Collier, containing his animadversions on our review of his poems. Were it not for its length, we should readily print his letter; but we flatter ourselves that our learned and worthy correspondent will perceive, that the difference between us is not *serious*, and that there is, probably, reason on both sides.

BIOGRAPHIA

BIOGRAPHIA LITERARIA.

WILLIAM CRUIKSHANK.

IF, conformably to the opinion of a great writer, a man is to be valued according to his usefulness in society, then may we consider the death of William Cruikshank as a public loss.

This eminent surgeon and writer was born near Glasgow, in 1745, and received the rudiments of his education at a Latin school, at Culross, in Perthshire. Thence he removed to the university of Edinburgh with the intention to study divinity. For two years he attended professors Stewart and Hunter, in latin and greek, when being presented by earl Dundonald to a bursary in the university of Glasgow, he repaired to this latter place. Here he went through all the classes of philosophy, but with a manifest preference for anatomy and physic. He took his degree of M. A. in 1767, having studied eight years at this university.

About this time, Dr. Hunter's assistant, Mr. Hewson, died; when, upon the doctor's enquiring after a gentleman to succeed him, Mr. Cruikshank was recommended by Drs. Pitcairne and Moore. Upon his arrival in London he was appointed the Doctor's librarian, and soon after he became perpetual pupil to St. George's hospital; the next year anatomical assistant, and in the end, partner in anatomy with Dr. Hunter. On the demise of that eminent anatomist, who had the honour of raising Mr. Cruikshank to the conspicuous situation he so well filled, the students presented an address of attachment and esteem to him and Mr. Baillie, the doctor's nephew, which induced them jointly to continue the superintendance of the anatomical school in Windmill Street; a school which had produced so many excellent scholars. Dr. Hunter left his house, theatre, and museum to Mr. afterwards Dr. Bailey; but the better to promote the interests of science, and the joint prosperity of these two gentlemen, Mr. Cruikshank was to have the privilege of lecturing in the theatre for the term of thirty years. It was then to revert to the lawful heir, and the museum to go to the university of Glasgow.

About this period the above university, of it's own accord, conferred on Mr. Cruikshank the degree of Doctor of Physic. He was afterwards elected a member of the imperial academy at Vienna: Honorary member of the Lycæum Medicum, in Leicester Fields, and of the royal medical society at Edinburgh.

In 1779 he published "Experiments on the Insensible Perspiration of the Human Body," in 8vo. republished with additions, some years afterwards. In 1786, he published "The Anatomy of the Absorbent Vessels in the Human Body," in one volume 4to. He therein gives a history of the discovery of the lymphatics, with instructions how to examine them; describes their coats, valves, the glandular bodies which they pass through, their ramifications, anastomoses, number and size; with some curious experiments of injections with quicksilver. His description of the thoracic duct is particularly interesting, and his opinions thereon novel. He thinks the valves at its termination occasionally oppose the retrograde motion of the blood through it from the subclavian; while in general, the force of the lymph is greater than that of the blood in the veins.

But

But the author's observations on dropsies in the first part are truly estimable; and particularly on those observations relative to the fever which often attacks women a few days after they have lain in, and has been attributed to the absorption of milk from the breast.

This work may be considered as a valuable addition to the libraries of anatomists, and a lasting monument of the skill, address, and indefatigable attention of its author. It has been translated into the French language by Dr. Rudel. Mr. Cruikshank is also the author of several valuable papers addressed to the royal society of London; one of which is entitled Experiments on the Nerves of living Animals. These experiments were afterwards repeated by the Abbe Fontana, in Italy, with the same success.

Mr. Cruikshank was as convivial in society, as he was expert in his art: indeed, to his love of festivity may be ascribed the primary, the remote cause of his death. He, however, never appeared unbecomingly inebriated, nor ceased to be even classical in his cups. It might be said, he was too well acquainted with the advice given to *bons vivans* of old, by Catius in the fourth satire of the second book of Horace, for he never failed to observe the Epicurean injunction:

"Massica si cœlo supponas vina sereno;"

Without forgetting the admonition, to say only what is good of the dead, we may qualify it by Dr. Johnson's advice, To speak only the truth: and here we must confess some failings were the lot of this inestimable practitioner. Besides his too great attachment to the bottle, he had a tincture of vanity with regard to dress, and some other particulars: and he has been charged with omitting the *s* at the end of his name, from the ungracious idea annexed to the word Cruikshanks. But in these respects we may, with a trifling alteration, apply the lines written on a celebrated female comedian, who exhibited some few specks in her admirable composition,

"If to *his* share some *human* errors fall,
"Think on his *skill*, and you'll forget them all."

Mr Cruikshank died at his house in Leicester Square, on the 27th of June, last, of an extravasation of blood upon the sensorium, occasioned by a too strongly excited impetus in the blood's circulation.

MONTALEMBERT.

It is in the nature of lettered science to overcome those obstacles which ordinarily present themselves to the free communication among mankind. Persons gifted with enlarged minds, and whose comprehensions embrace more than the globe itself, are so far from wishing to conceal their knowlege, that they are desirous of impartingit's fruit to all the earth, and that every portion of it should be supplied with light from their own illuminated understanding. Thus it is that Plato is known to men living far and wide from each other, and, is perhaps, best understood by those who, not only never breathed the same air with that philosopher, but who probably have never quitted the spot where they first drew breath.

Marie Rene' de Montalembert was senior member of the academy of sciences, and senior general in France. He lately died at the age of 86, being born at Angouleme, July 6th 1714. He was descended from the illustrious André de Montalembert, Count d' Essé, lieutenant-general to the king of France, and commander of his armies in Scotland; who died on the breach at St. Omer's.

Montalembert, in the course of his military career, was employed in many active campaigns, and was at the sieges of Kehl and Philipsburg in 1736; but what renders him dear to the sciences, is his being well skilled in the

the mathematics, and in natural philosophy. He read a memoir to the academy, upon the evaporation of the water in the salt-works, at Turcheim, whereby he was received as a free associate in 1747. There are also several learned memoirs from him in the volumes of the academy, one of which is upon the substitution of stoves for fire places.

His correspondence with the French generals and ministers whilst he was employed in the Swedish and Russian armies during the campaigns of 1757 and 1761, was published in 3 vols. in 1777. He was an able engineer, and published near the above time, the first volume of an immense work upon perpendicular fortification, and the art of defence. Although his system was greatly animadverted upon at the time, yet we find Carnot, the present war minister of France, lately directed the plan of a fortification, wherein the ideas of Montalembert were adopted. His treatise was extended to ten volumes in 4to. containing a great number of plates. This work comprizes every part of military tactics, and contains the history of the most famous sieges, with plans of a great number of cities and harbours. As this author and general married Mad. de Comarieu, the actress and owner of a theatre, he condecended to compose, for her benefit, three operatical pieces, which were set to music by *Cambini* and *Tomeoni*. In the second year of the revolution, he was, however, divorced from this lady, and married Rosalie Louise Cadet, who bore him a daughter in July 1796, though in his 82nd year. His last occupation was upon some papers, containing reflections on an invasion of England; a project in full contemplation just before his death. He is said to conclude these considerations with the following emphatic line;

"L'on ne vaincra jamais les Anglois que dans Londres."

He possessed his strength of mind to the last; and was actually on the list for nomination as first member for the section of mechanics in the natural institute. He fell ill of a violent catarrh, during the severe weather of the last winter, and this illness degenerated into a dropsy, which more immediately occasioned his death.

SAMUEL IRELAND.

When a man, however gifted in genius, or eminent in talents, has been convicted of guilt, and publicly branded as an imposter, it would be an affront to the honest and virtuous part of mankind, to name him with the worthies, who have honoured their country, or embellished the walks of literature by their labour, and the fruits of their cultivating judgements. Samuel Ireland has been suspected, has been arraigned at the bar of criticism, of a gross and unpardonable perfidy; but he has not been fully tried and condemned. It is neither in our province nor in our desire to become his advocate, but we shall never be blamed by following the mild spirit which dictates the laws of England, in believing the accused innocent, till a verdict be given to the contrary. Indeed, the cause may be said to be taken out of the court, by the full and ample confession of one who, though always judged a *particeps criminis*, had not so much credit given him as to be thought capable of plotting and carrying the novel, the audacious fraud, so near to a final accomplishment. We say *novel:* for, unless in the case of the Impostor, Vella of Palermo, so profound a trick and forgery, to deceive the learned and the antiquary, has not been attempted in the memory of man.

As the profound Dr. Hager was the detecter of the pretended lost books of Livy, so was the ingenious Mr. Malone the discoverer of the unauthenticity of the miscellaneous papers attributed to our immortal Shakspeare. By the masterly criticism of this able commentator of the great dramatic bard, the

the fraud was fully laid open, and the opinions of Drs. Parr and Warton, with other literati, who believed in their genuineness, proved to be erroneous. The first and leading step to this detection was, Mr Malone's pointed epistle to his countryman Lord Charlemont. Nevertheless, the spurious tragedy of *Vortigern* was represented at Drury Lane theatre, on the 2nd of April, 1796, to a numerous audience, whose patient indulgence had been entreated by a handbill at the door, requesting "That the play might be attended to with that candour which has ever distinguished a British audience." It was listened to for a considerable time with great attention and liberality; but now and then a simper, (more fatal in a tragedy than a thousand catcalls and hisses) broke out, and at length the cheat, that had been practiced on the public credulity, became manifest beyond all question and doubt; and the piece, of course, was condemned to its merited fate. Samuel William Henry Ireland has, however, invoked the whole odium on himself, and declared his father innocent; that it was his own artifice which duped the credulity of his parent, and made him an instrument in the imposition. This may be true; and it is a pity we cannot say with Shakspeare's Grumio. "Here's no knavery:" on the contrary, we must add, "See; to beguile the old folks, how the young folks lay their heads together!" and conclude by putting the public henceforward, in the place of Petruchio, and as a warning, exclaim, "Master! master! look about you!"

But we are to speak of Samuel Ireland as he is known by his acknowleged works which prove him to have been a man of genius and application. He was formerly a manufacturer in Spital-Fields; but having a taste for literature and the fine arts, abandoned his commercial pursuits. He became a great collector of paintings; and in his "Picturesque Tour through Holland, Brabant, and part of France, made in the autumn of 1789," he informs us, that one of the objects of his tour was, to describe such paintings as appeared to him most worthy the attention of a connoisseur. This splendid work was published in 1790, in two volumes 8vo. and embellished with copper-plates in aqua-tinta, executed in a superior manner: the typography and paper accorded with the beauty of the other parts. The success of his picturesque views, got up in the same stile, proves him to be one of our most fortunate literary speculators in this age of fine printing; wherein an eagerness after copper-plate embellishments, is every where visible. In 1792, his, "Picturesque Views of the River Thames," appeared, and the year following, "Picturesque Views on the River Medway." Mr. Ireland gave to the world, in 1794, his "Graphic Illustrations of Hogarth," from pictures, drawings, and scarce prints in his possession. He wrote a vindication of his conduct, respecting the publication of the supposed Shakspeare MSS, being "A Preface or Introduction to a reply to the Critical Labours of Mr. Malone, &c." He wrote also, "An Investigation of Mr. Malone's claim to the character of Scholar or Critic," in 8vo. which last performance as to literary merit, is deemed the best his pen has produced. Mr. Ireland, immediately previous to his death, had finished a history of the inns of court, with views, &c. He has also left numerous detached pieces, but we cannot guess who will be the candidate for publishing these posthumous works.

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